MONROE ELECTRONICS

One-Net SE ™

Digital Emergency Alert System Encoder/Decoder

Users Manual

Model R189^{SE}
Version 2.6-0
March 27, 2015

Monroe Electronics, Inc.
100 Housel Avenue
Lyndonville, NY 14098

FCC Information

FCC ID: R8VDASDEC-1EN
The One-Net is fully compliant with FCC Part 11.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

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1 Getting Started with the One-Net^{SE}

1.1 Introduction

The One-Net^{SE} is an Emergency Alert System (EAS) Digital Encoder/Decoder platform. The One-Net^{SE} is built with the latest digital PC computer technology. The One-Net^{SE} encoding/decoding technology is software based, and is built upon the Linux OS. The One-Net^{SE} core hardware is a standard PC motherboard and digital audio sound cards. The One-Net^{SE} is easy to upgrade, not requiring custom ROMS. The One-Net^{SE} also exploits the benefits of modern network technology. It is fully operable over a LAN using secure network protocols. In addition, it supports existing methods of device control using a serial port. The One-Net^{SE} is representative of the continuing advance of PC hardware into technological areas that only a few years ago required custom hardware.

1.2 Features

The One-Net^{SE} provides a number of features for easier management of FCC EAS requirements. The One-Net^{SE} has been designed to improve the EAS system for Radio and TV broadcasters, Cable TV Headend facilities, LP1 and LP2 designated stations, and Public Safety and Emergency Service personnel.

One-Net^{SE} hardware specs

- 2x20 backlit LCD display for monitoring unit and decoder status
- Operational status LED
- Alert decoding/output LED
- Cool running, low power CPU
- Two ethernet ports for network access
- Base unit has 3 “F” connector antenna inputs for up to 3 internal AM/FM/ NOAA radios
- SSD drive
- 3.5mm mini-jack stereo audio output port
- 3.5mm mini-jack microphone input
- 1 RS-232 Serial port, supports numerous existing EAS character generator protocols.
- USB ports will support extra serial ports, printers, modems, wireless Ethernet, flash drives, etc.
- VGA out for console or desktop GUI interface
- One NTSC/PAL video output
- BNC Video output

Continued on next page

- Standard PS/2 keyboard/mouse ports
- Supports PCI expansion card, use with audio card for scanning two more audio inputs
- Internal speaker for monitoring
- Can be safely powered off/on without disk damage
- Optional GPI input/output and balanced audio output module.

One-Net^{SE} general software features/specs

- Linux 2.6.27 operating system
- Built in multi-user, password protected Web interface for control/status/monitoring of all activity.
- Web interface supports SSL.
- KDE desktop available via directly connected keyboard/mouse/VGA monitor
- Supports sending email for decoded/forwarded/originated alerts
- Support SMS pager output using USB modem
- Socket based network interface for monitoring/control
- Supports WiFi wireless networking via USB
- Supports a variety of printers via USB/Parallel
- Supports operational status indication via LED and LCD
- Web interface for software update
- Support for optional GPI input to trigger actions and optional GPI output during alerts.
- Supports DVS-168 for DNCS (SA) (Optional).
- Supports DVS 644 Standard (SCTE 18) (Optional).

One-Net^{SE} decoder features

- Decodes FCC EAS codes and NOAA SAME codes.
- Automatic audio level correction for reliable operation.
- Supports fully unattended operation.
- Supports manual and selectable automatic alert auto-forwarding.
- Easy to use web interface for configuration of auto-forwarding locations and codes.
- Web interface for easy review and print logs of active and expired decoded/forwarded alerts.
- Stores user configurable number of previous alerts.
- Supports multiple simultaneous active decoded alerts.
- Configurable audio output port selection for alert forwarding.
- Decoding status displayed on unit LCD and LED.
- Stores each audio section of EAS alerts into digital files.
- Supports several protocols for alert audio playback and alert translation data transfer
- Will support scanning up to six input channels (depends on hardware expansion)

One-Net^{SE} Encoder features

- Easy to use Web interface for creating and sending FCC EAS alerts.
- Web interface makes it easy to configure commonly used locations and alert types.
- Web interface makes it easy to review and print logs of active and expired originated alerts.
- All audio sections of encoded alerts are stored into separate digital audio files.
- Stores user configurable number of previous originated alerts.
- Supports multiple simultaneous active originated alerts.

- Configurable audio output port selection for originated alerts
- Automatic randomized weekly test generation.
- User programmable length for FCC EAS 853 Hz and 960 Hz Two-tone Attention Signal.
- Web interface upload feature for digital audio files facilitates encoding the EAS audio portions.
- Supports direct recording of EAS alert audio into digital files.
- Audio output level control via web interface.

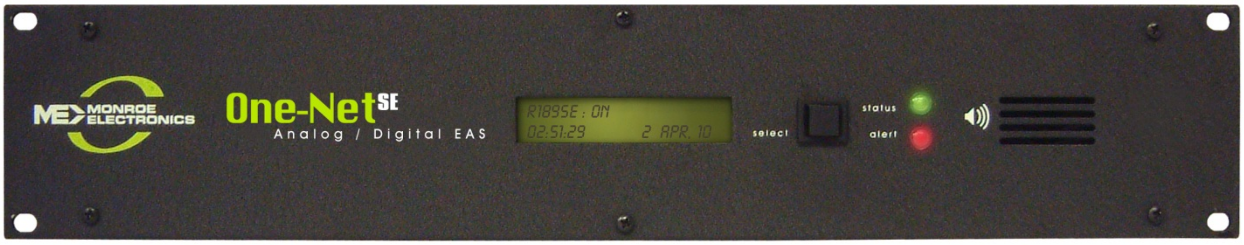
1.3 User Manual

Generally, One-Net^{SE} screens are self-explanatory. The manual has a section for each screen, which reviews information on the screens and provides additional information. The index at the back will help you locate which screen has information you are looking for.

2 One-Net^{SE} Hardware and Setup

2.1 Introduction

The One-Net^{SE} is a 2U rack mounted unit built with the latest digital PC computer technology. It is an embedded PC platform. The front of the One-Net^{SE}, pictured below, provides a very simple face for a very sophisticated platform. The One-Net^{SE} exposes the PC motherboard connectors and single PCI slot in the rear of the unit.



2.2 Front Panel

The front panel features a 2x20 character backlit LCD that indicates power-on, and real-time device status. There are also two LED's - one red, one green - for indicating specific types of status. The select switch provides the ability to activate a Required Weekly Test from the front panel. A front panel speaker allows the user to verify the quality of audio signals.

2.2.1 LCD

The backlit green LCD provides real-time status of the One-Net^{SE}. The LCD is used for numerous purposes, all indicating system and/or encoding/ decoding and active alert status. Here is a list of information available from the LCD.

- When the One-Net^{SE} is powered on, the LCD will light up, indicating power-on state.
- While the One-Net^{SE} is booting, the LCD will move through a few display states, eventually arriving at the ready state where the first line will display **One-Net: ON** followed by a crawling display showing the programmed unit name, the software version number and the IP address.
- During decoding of an incoming alert, the LCD will display information about the source and the stage of the decoding.

While decoded, forwarded or originated alerts are active on the One-Net^{SE}, the top line will repeat displaying pertinent identification for each active alert.

2.2.2 Status LED's

The One-Net's two LED's are used for a variety of status indications, making it easy to see at a glance certain important system states.

System Status - Green LED

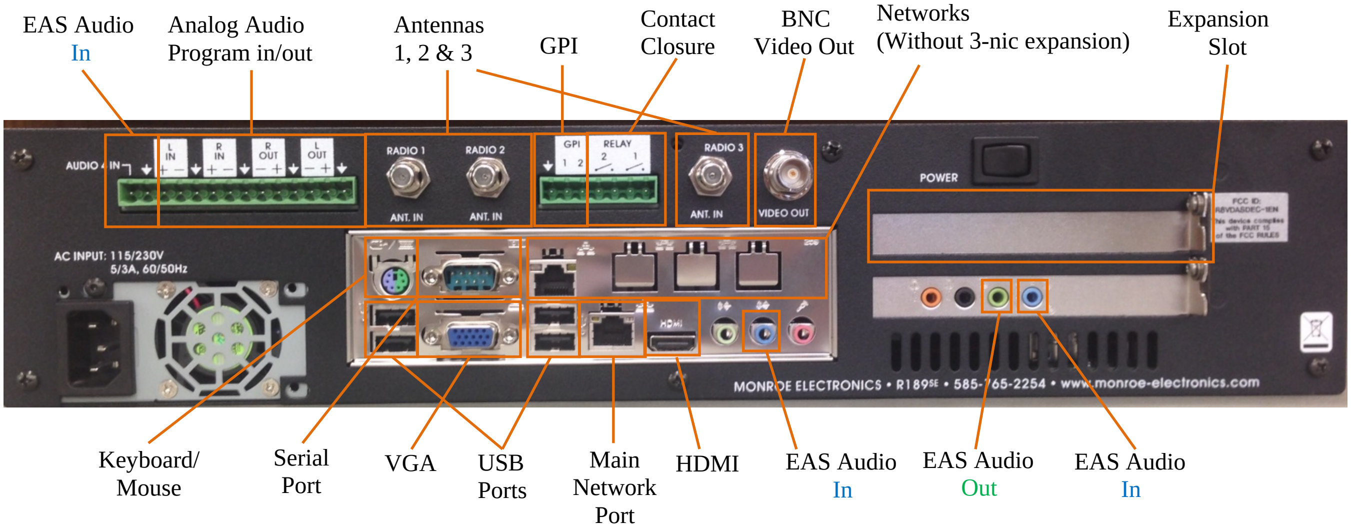
- When the One-Net^{SE} is first powered on, the green LED is dark.
- When the booting process advances far enough, the green LED begins to blink.
- When the One-Net^{SE} nears a ready state, the green LED blinks more rapidly. When the One-Net^{SE} is ready, the green LED light is on solid. A solid green LED indicates the One-Net^{SE} is operational.
- If the green LED starts blinking, the One-Net^{SE} server has become non-operational. This can happen during software upgrades.

Alert status - Red LED

- When the One-Net^{SE} is first powered on, the red LED is dark.
- After the One-Net^{SE} becomes operational, in a ready state, with the green LED solid, the red LED indicates decoding and alert sending status.
- If the red LED is blinking quickly, with pauses, the One-Net^{SE} server is decoding an incoming alert. If the red LED is solid, the One-Net^{SE} is sending an EAS alert.

2.3 Back Panel Connectors

The back of the One-Net^{SE} provides all of the connection ports. In addition to the standard PS/2 mouse and keyboard and VGA monitor ports, the One-Net^{SE} provides an RS-232 serial port (COM1), two RJ45 LAN ports, four USB ports, main audio line in, out, and microphone jacks, auxiliary audio line in, out, and microphone jacks, and a TV out connector.



2.4 Audio Wiring

Audio wiring on the One-Net^{SE} has some flexibility due to the option of adding a second sound card and because of built-in software control. Here are a few rules:

- EAS decoder input always uses the audio line inputs.
- Every line input can be used for decoding audio provided from an external receiver or EAS decoder.

- Every line input supports two (2) EAS decoders. The left side of the input is decoded separately from the right side. So two line inputs provide four (4) EAS decoders.
- EAS alerts are selectively played out of the analog line output ports. Software is used to select which ports are used for alert origination and forwarding.
- The main microphone input is used to record EAS audio messages.

For decoding, each side of the stereo input of any audio input can be selectively used as a single decoder source. In other words, one stereo input supports two EAS decoders. A dual RCA to 3.5 mm jack input adapter can be used to connect two separate mono input signals to a One-Net^{SE} line input jack.

For alert encoding an audio cable is run from a software-selected 3.5 mm line output jack into your systems alert audio wiring. Only analog audio output is supported.

NOTE: The SPDIF digital audio output port is not used.

2.5 Video Wiring

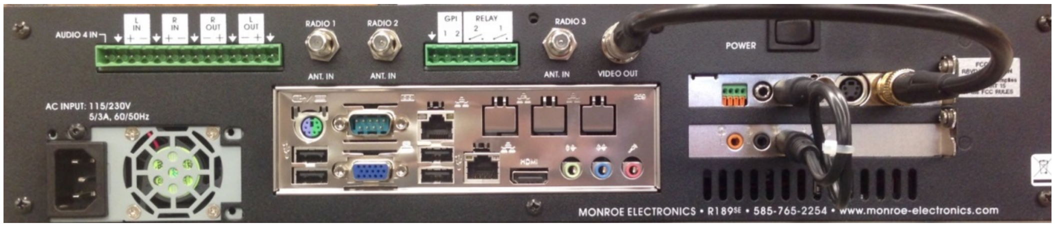
The video output provides an NTSC analog composite video signal through the yellow RCA jack. This will provide a details page during alert forwarding and/or alert origination.

2.6 GPIO Output relays

The One-Net^{SE} provides two General Purpose Output relays and two General Purpose inputs. During an alert origination or forwarding, the GPO relay 1 is closed for the duration of the alert audio portion of the alert, and GPO relay 2 can be programmed to close during the audio or video portion of the alert.

2.7 MPEG Encoder Card Wiring

For One-Nets equipped with the optional MPEG2 Encoder card, see the illustration below for wiring the MPEG2. The video output needs to be loop cabled back into the video input of the Encoder card. Likewise, one audio output needs to be cabled to the MPEG audio input port.



Optional MPEG2 PCI Encoder Card Audio/Video connections

3 One-Net^{SE} Operation

3.1 Power Up, User Interface and Initial Setup

The One-Net^{SE} uses a standard AC power cord. It uses a single power toggle switch to power on.

NOTE: Power is supplied to the unit electronics while the external cord is plugged and supplied with power even if the unit is powered off.

There are two ways to get a user interface are via a network connection using a Web browser on a remote host. The One-Net^{SE} is given a default static network address of 192.168.0.200. The One-Net^{SE} can be connected directly to another computer's Ethernet port using a network crossover cable, or can be connected to a hub or router using a standard network cable. Network cabling may be done at any time.

NOTE: the One-Net^{SE} must be fully booted before it can provide a network connection.

Once the One-Net^{SE} is correctly cabled, power up by pressing the power switch or rocker on the upper right corner of the rear panel. The LCD screen will light up if power is applied. Allow the One-Net^{SE} time to boot. The LCD screen and the green system status LED will indicate when the One-Net^{SE} is ready.

3.1.1 Directly connecting a networked host computer

Connect a CAT-5 network crossover cable, included with your One-Net^{SE}, to the RJ45 port at the back of the One-Net^{SE} and to the RJ45 port of the network interface card (NIC) of a standalone PC or notebook computer. Configure the standalone PC to use the static IP address 192.168.0.201 with a net mask of 255.255.0.0. After One-Net^{SE} power up and booting, it can be accessed via a Web browser on the host computer.

Now launch a Web browser application and direct the URL to http:/192.168.0.200/. The One-Net^{SE} will provide a gateway page and quickly redirect to the One-Net^{SE} login page. Follow the instructions for Section 3.2 below for logging into the One-Net^{SE} using the Web login page. After login, the One-Net^{SE} is ready to use, although typically it will be desirable to reconfigure the network address.

3.1.2 LAN connection with a networked host computer

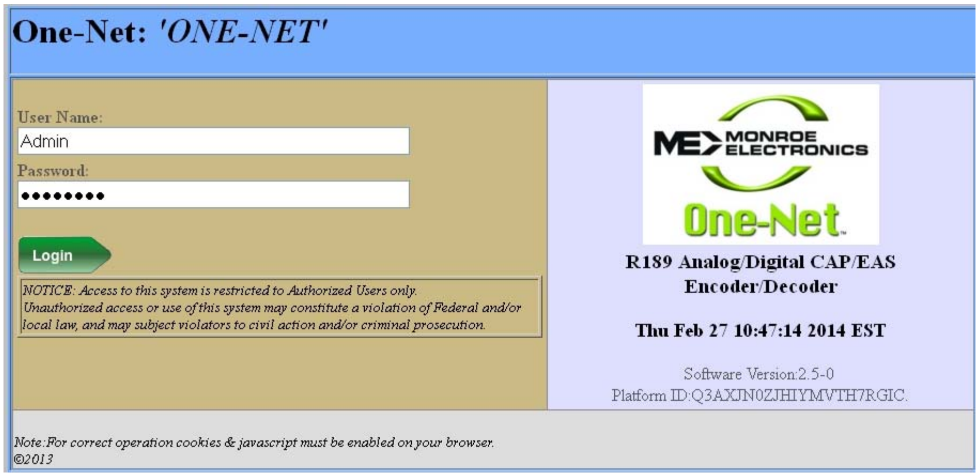
Connect a standard CAT-5 network cable from the RJ45 port at the back of the One-Net^{SE} into a routing hub or other network-switching device. You will likely need assistance from a network administrator to insure the One-Net's default network address of 192.168.0.200 will be visible on the network, or will not clash with an existing node. Once the One-Net^{SE} is powered up, booted, and operational, it can be accessed via a Web browser from any remote computer on the LAN routed to see the address 192.168.0.200. Follow the instructions for Section 4.2 below for logging into the One-Net^{SE} using the Web login page. After login, the One-Net^{SE} is ready to use, although typically it will be desirable to reconfigure the network address.

3.2 Web Server Login

When the One-Net^{SE} successfully connects for a Web session, it will present the following page in the Web browser.

Type "Admin" (no quotes) as the default user name, and "dasdec" (again, without quotes) as the password. Press the left mouse button over the Login button. With the correct user name and password, the One-Net^{SE} will login. If the user or password is incorrect, the One-Net^{SE} will display a message indicating the problem. If the One-Net^{SE} is left unattended for 10 minutes, it will automatically logout. A message indicating session timeout will be displayed on the login screen.

At your first login, One-Net^{SE} will show the **Setup > Server** page in your web browser. Subsequent logins will start at the last page displayed prior to logout.



One-Net: *'ONE-NET'*

User Name: Admin

Password: ••••••••

NOTICE: Access to this system is restricted to Authorized Users only. Unauthorized access or use of this system may constitute a violation of Federal and/or local law, and may subject violators to civil action and/or criminal prosecution.

R189 Analog/Digital CAP/EAS Encoder/Decoder

Thu Feb 27 10:47:14 2014 EST

Software Version:2.5-0
Platform ID:Q3AXJN0ZJHIYMVTH7RGIC.

Note:For correct operation cookies & javascript must be enabled on your browser.
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One-Net^{SE} Log in screen

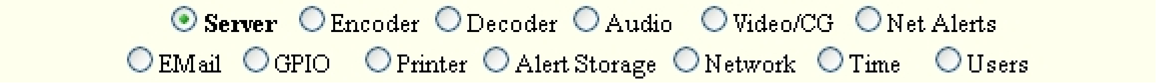
The One-Net^{SE} Web Interface is organized as a rather standard hierarchical set of related interfaces. Every page presents a standard header area with basic user session information and a set of four (4) major tabbed page groups. The page groups are Encoder, Decoder, Setup, and Server. For a decoder-only One-Net^{SE}, the Encoder page group is omitted. Each major group has a set of sub-options that appear as “radio” button selections under the group tab (such as the Server sub-option page under Setup). Only one of these sub-options may be selected at a time. Under a sub-option either a single page or another set of related tabbed pages will be presented. To navigate the One-Net^{SE}, first select the major group tab, and then select the sub option under the tab. When moving from major group to major group, such as from Setup to Server and back to Setup, the last selected sub option is remembered. To refresh the current page, click on the “Refresh” button on either the top or bottom of the web page.

IMPORTANT NOTE: In general, DO NOT use the back button or the Refresh/Reload buttons on your browser to go back to pages visited earlier. Although this often works, it can provide misleading, out-of - date server state information, and in some cases can result in unintended actions being performed. Instead, always use the provided One-Net^{SE} navigation buttons.

This manual will present descriptions and screen shots from each of these groups and sub-options.

4 SETUP

The **SETUP** pages present the One-Net^{SE} server configuration sub-options. These are, in left to right order:

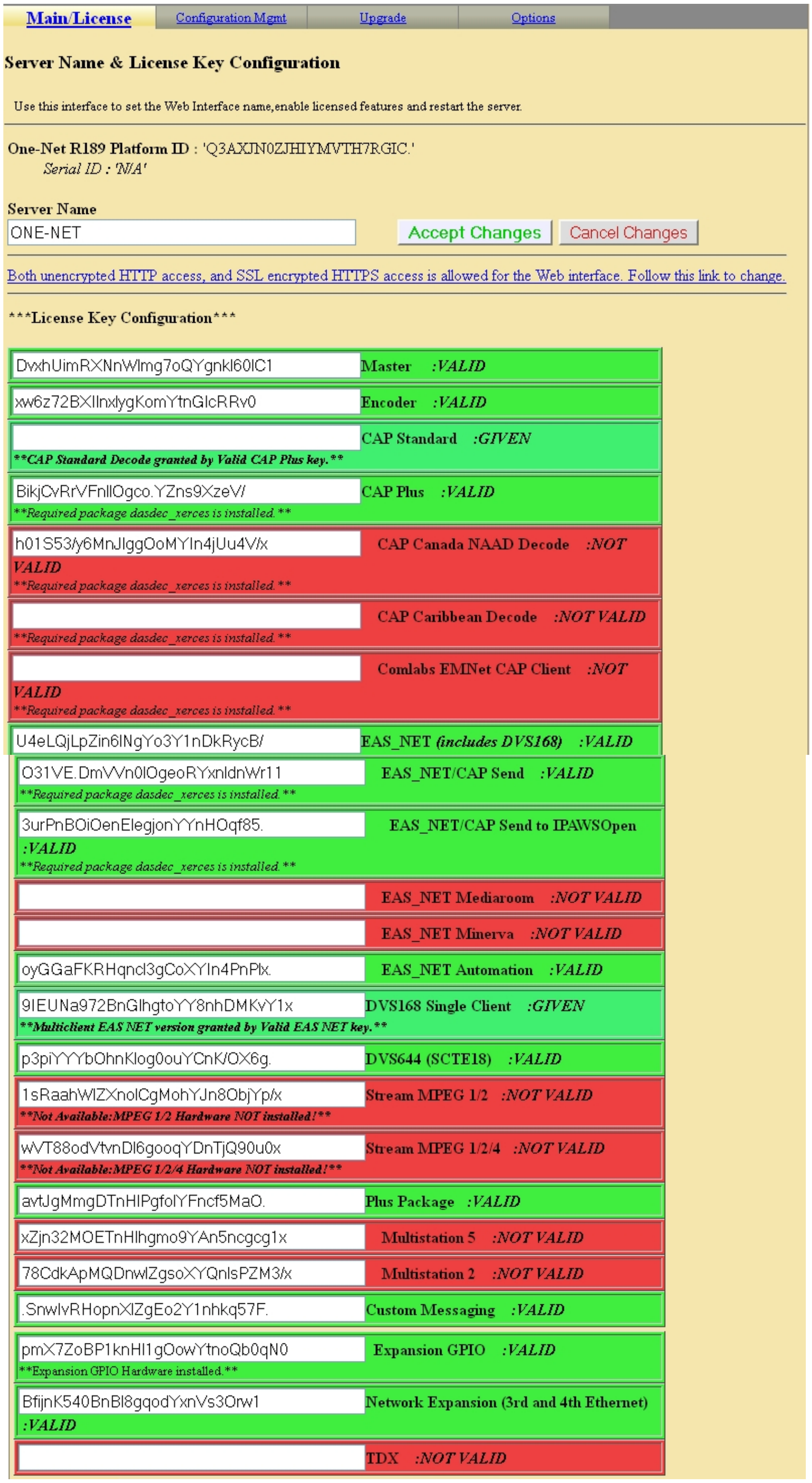


● **Server** ○ Encoder ○ Decoder ○ Audio ○ Video/CG ○ Net Alerts
○ EMail ○ GPIO ○ Printer ○ Alert Storage ○ Network ○ Time ○ Users

At the first login, before the One-Net^{SE} can be used, the server must be configured. The recommended order is to first set up the Server, then Network, Time, Users, Email, Audio, Video/CG, Decoder, Encoder. The subsequent chapters review information on the screens and provide additional information.

4.1 Setup > Server: Server Configuration

If the web page displayed is not **Setup** > **Server**, select this page using the tab at the top of the web page. There are three tabbed sections: Main License, Configuration Mgmt, Upgrade, and Options.



Server Name & License Key Configuration

Use this interface to set the Web Interface name,enable licensed features and restart the server.

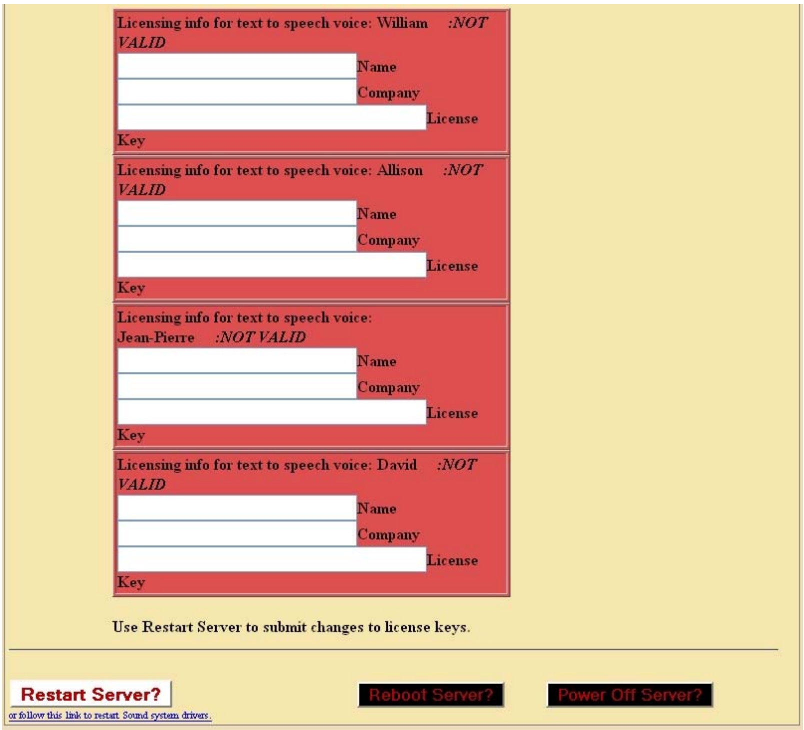
One-Net R189 Platform ID : 'Q3AXJN0ZJHIYMVTH7RGIC.'
Serial ID : 'N/A'

Server Name
ONE-NET

Both unencrypted HTTP access, and SSL encrypted HTTPS access is allowed for the Web interface. Follow this link to change.

License Key Configuration**

DvxhUimRXNnWlmg7oQYgnkl60IC1	**Master** ***:VALID***	
xw6z72BXIlnxlygKomYtnGIcRRv0	**Encoder** ***:VALID***	
	CAP Standard ***:GIVEN***	*****CAP Standard Decode granted by Valid CAP Plus key.*****
BikjCvRrVFnllOgco.YZns9XzeV/	**CAP Plus** ***:VALID***	***Required package dasdec_xerces is installed.***
h01S53/y6MnJlggOoMYIn4jUu4V/x	**CAP Canada NAAD Decode** ***:NOT VALID***	***Required package dasdec_xerces is installed.***
	CAP Caribbean Decode ***:NOT VALID***	***Required package dasdec_xerces is installed.***
	Comlabs EMNet CAP Client ***:NOT VALID***	***Required package dasdec_xerces is installed.***
U4eLQjLpZin6lNgYo3Y1nDkRycB/	**EAS_NET *(includes DVS168)*** ***:VALID***	
O31VE.DmVVn0lOgeoRYxnldnWr11	**EAS_NET/CAP Send** ***:VALID***	***Required package dasdec_xerces is installed.***
3urPnBOiOenElegjonYYnHOqf85.	**EAS_NET/CAP Send to IPAWSOpen** ***:VALID***	***Required package dasdec_xerces is installed.***
	EAS_NET Mediaroom ***:NOT VALID***	
	EAS_NET Minerva ***:NOT VALID***	
oyGGaFKRHqncl3gCoXYIn4PnPlx.	**EAS_NET Automation** ***:VALID***	
9IEUNa972BnGlhgtoYY8nhDMKvY1x	**DVS168 Single Client** ***:GIVEN***	*****Multiclient EAS NET version granted by Valid EAS NET key.*****
p3piYYYbOhnKlog0ouYCnK/OX6g.	**DVS644 (SCTE18)** ***:VALID***	
1sRaahWlZXnolCgMohYJn8ObjYp/x	**Stream MPEG 1/2** ***:NOT VALID***	*****Not Available:MPEG 1/2 Hardware NOT installed!*****
wVT88odVtvnDl6gooqYDnTjQ90u0x	**Stream MPEG 1/2/4** ***:NOT VALID***	*****Not Available:MPEG 1/2/4 Hardware NOT installed!*****
avtJgMmgDTnHIPgfolYFncf5MaO.	**Plus Package** ***:VALID***	
xZjn32MOETnHlhgmo9YAn5ncgcg1x	**Multistation 5** ***:NOT VALID***	
78CdkApMQDnwlZgsoXYQnlsPZM3/x	**Multistation 2** ***:NOT VALID***	
.SnwlvRHopnXlZgEo2Y1nhkq57F.	**Custom Messaging** ***:VALID***	
pmX7ZoBP1knHl1gOowYtnoQb0qN0	**Expansion GPIO** ***:VALID***	**Expansion GPIO Hardware installed.**
BfijnK540BnBl8gqodYxnVs3Orw1	**Network Expansion (3rd and 4th Ethernet)** ***:VALID***	
	TDX ***:NOT VALID***	



Licensing info for text to speech voice: William :NOT VALID

Licensing info for text to speech voice: Allison :NOT VALID

Licensing info for text to speech voice: Jean-Pierre :NOT VALID

Licensing info for text to speech voice: David :NOT VALID

Use Restart Server to submit changes to license keys.

or follow this link to restart Sound system drivers.

Setup > Server > Main/License: Web Page, License Key Configuration

NOTE: The Restart Server? Button on this page can be clicked to restart the One-Net^{SE} server software. This is used during **License Key configuration**. It can also be used at any time the One-Net^{SE} appears to be functioning incorrectly. A confirmation page is displayed before the restart is actually run. All logged in users will be forced out of the system and will be required to log back in. Decoding will be temporarily paused during the restart. This is not a system reboot, but nonetheless: USE THIS OPTION WITH CARE!

Reboot Server?: This option is a full system reboot. The unit will power down and go through the entire boot process when it starts back up.

Power Off Server?: This option powers down the One-Net.

4.1.1 Main/License

One-Net ID
This is a unique identifier for the actual One-Net^{SE} hardware. This is different for every One-Net^{SE}. It cannot be edited.

Server Name
The One-Net^{SE} server name can be edited. If changes are made to this value, save them by clicking Accept Changes.

License Key Configuration

Master

The Master license key is preconfigured.

To enable any of the following options in the future, not originally purchased with this unit, follow these steps:

- Enter the key, obtained from Monroe Electronics, into the box to the left of the option.
- Click on the “Restart Server” button to enable the option.
- After the Server restarts, Log back into the unit and the option you just entered the key for should have changed from red to green indicating it has been enabled.

Encoder

A second product key protects the Encoder functionality. Once a valid Encoder key has been enabled, you can configure and use the One-Net^{SE} encoder.

CAP Standard

Common Alerting Protocol (CAP) Software Option for One-Net directly handles CAP v1.2 messages to ensure compliance with FEMA/IPAWS profile 1.0 requirement for text and audio processing.

CAP Plus

Common Alerting Protocol (CAP)-Plus Software Option for One-Net directly handles all currently specified CAP v1.2 messages; (text, audio, images, etc.) as well as 2 full years of in-version upgrades to ensure compliance with FEMA/IPAWS profile 1.0 requirements “ includes support for automatic Text-To-Speech translation of alert text, and basic, single-voice, Text-to-Speech license.

CAP Canada NAAD Decode

This allows you to use the National Alert Aggregation & Dissemination System (NAAD System) to decode National Alerts in Canada.

EAS_Net/CAP Send

This option is used in the IPTV market or if a One-Net^{SE} is sending alert information to another One-Net^{SE}. This software addition allows you to be able to originate and encode CAP alert messages.

EAS_NET/CAP Mediaroom

This software option adds support for Microsoft Mediaroom.

EAS_Net Minerva
This option is used when the One-Net^{SE} is communicating to Minerva middleware.

EAS_NET/CAP Automation
EAS NET support for Wide Orbit (broadcast automation software for television stations, radio stations, cable television stations, cable operators, web television, digital television and out-of-home advertising) and RCS Nexgen (provider of scheduling and broadcast software for radio, Internet and television stations).

DVS168
This option unlocks EAS alert network forwarding via the SCTE DVS168 standard.

DVS644 (SCTE-18)
This option unlocks EAS alert network forwarding via the DVS644 (SCTE 18) standard.

Stream MPEG 1/2
This option unlocks EAS alert encoding into an MPEG stream. This option can only be enabled in units equipped with the MPEG-2 card hardware option.

Stream MPEG 1/2/4
This option unlocks EAS alert encoding into an MPEG stream. This option can only be enabled in units equipped with the MPEG-4 card hardware option.

Custom Messaging
This option unlocks the Custom Messaging feature. When enabled a license must also be provided for the voice for the text to voice feature.

Network Expansion
Triple Port Gigabit Ethernet Expansion option. This FACTORY INSTALLED option adds three (3) 10/100/1000bT Ethernet ports for a total of four (4) unique Ethernet network links (The standard One-Net Ethernet port remains 10/100bT). Please contact the factory regarding upgrading in-field units.

TDX
This option unlocks the EAS Textual Data eXchange option. TDX allows extra details to be encoded into alert messages.
Licensing info for text to speech voice: David, Allison, William, and Jean-Pierre
This package provides a free simple text to speech engine and a commercial licensed advanced text to speech engine. This package is currently only used for the OneNet Custom Messaging package. Later versions of OneNet software will support further uses of Text to Speech. This package will be pre-installed on systems purchased after Aug 15, 2008.

> David voice: This package provides a realistic male voice for the Advanced Text to Speech option. This voice must be separately licensed within the

OneNet before it can be used. The current license key for the 6.2-1 speech synthesis package is NOT compatible with the 2.0-0 packages. Licensing for one voice is given with the Custom Messaging license. This package will be pre-installed on systems purchased after Aug 15, 2008.

Allison voice: This package provides a very realistic female voice for the Advanced Text to Speech option. This voice must be separately licensed within the OneNet before it can be used. The current license key for the 6.2-1 speech synthesis package is NOT compatible with the 2.0-0 packages. Licensing for one voice is given with the Custom Messaging license. This package will be pre-installed on systems purchased after Aug 15, 2008.

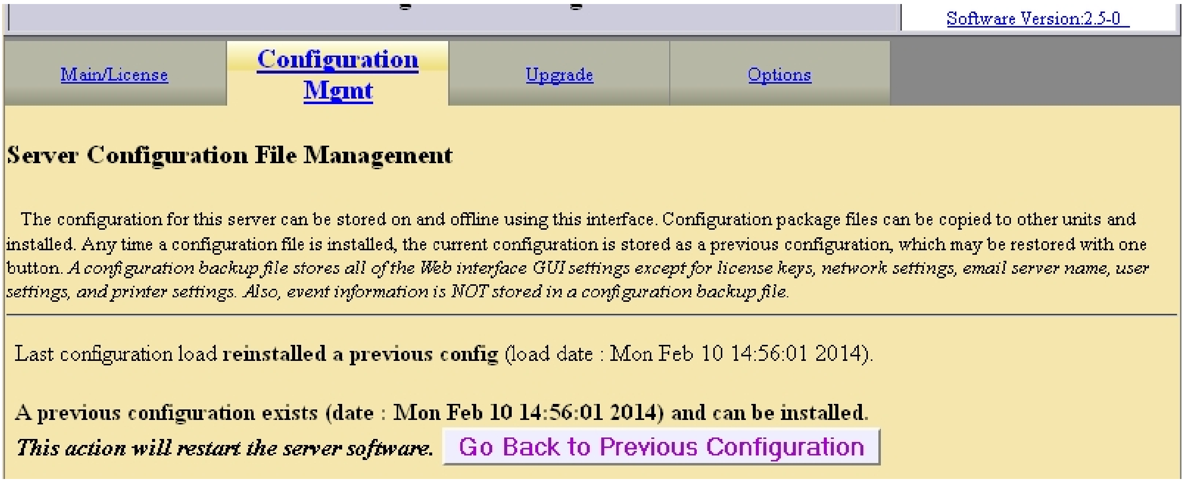
William voice: This package provides a realistic male voice for the Advanced Text to Speech option. This voice must be separately licensed within the OneNet before it can be used. The current license key for the 6.2-1 speech synthesis package is NOT compatible with the 2.0-0 packages. Licensing for one voice is given with the Custom Messaging license. This package will be pre-installed on systems purchased after Aug 15, 2008

Jean-Pierre: This package provides a realistic male French Canadian voice for the Advanced Text to Speech option. This voice must be separately licensed within the OneNet before it can be used. The current license key for the 6.2-1 speech synthesis package is NOT compatible with the 2.0-0 packages. Licensing for one voice is given with the Custom Messaging license. This package will be pre-installed on systems purchased after Aug 15, 2008

4.1.2 Configuration Mgmt

This page is used to backup or restore the configuration of your One-Net^{SE}. A copy of the configuration can be stored in another location and can even be uploaded into another One-Net^{SE}.

Make Backup
Clicking on this button will start the process of creating a configuration backup. This backup will save all of your configuration settings, except for the Setup Network page, to a file that will be stored in your One-Net^{SE}. This file can be stored in another location by clicking on “Download selected configuration file”. This configuration file can be store in a safe place and can be used to restore your settings in the One-Net^{SE}.



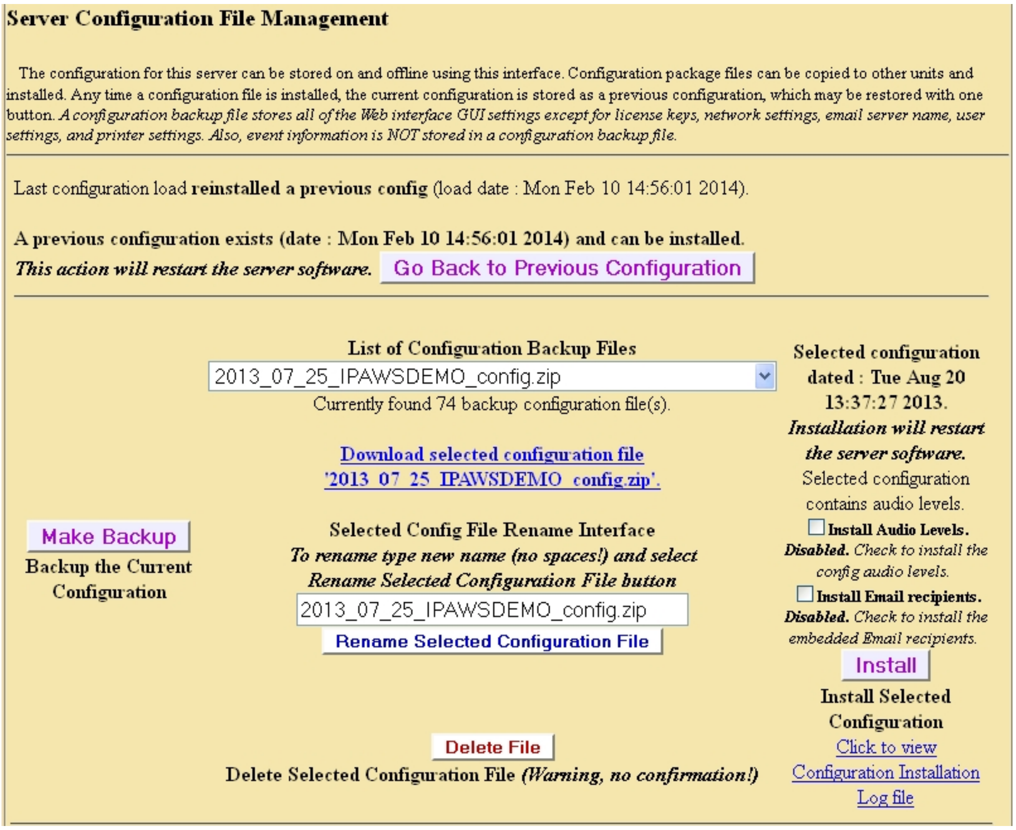
Server Configuration File Management

The configuration for this server can be stored on and offline using this interface. Configuration package files can be copied to other units and installed. Any time a configuration file is installed, the current configuration is stored as a previous configuration, which may be restored with one button. *A configuration backup file stores all of the Web interface GUI settings except for license keys, network settings, email server name, user settings, and printer settings. Also, event information is NOT stored in a configuration backup file.*

Last configuration load **reinstalled a previous config** (load date : Mon Feb 10 14:56:01 2014).

A previous configuration exists (date : Mon Feb 10 14:56:01 2014) and can be installed.
This action will restart the server software.

Setup > Server > Configuration Mgmt: Before clicking "Make Backup"


Go Back to Previous Configuration
Make Backup
Rename Selected Configuration File
Install
Delete File

Server Configuration File Management

The configuration for this server can be stored on and offline using this interface. Configuration package files can be copied to other units and installed. Any time a configuration file is installed, the current configuration is stored as a previous configuration, which may be restored with one button. *A configuration backup file stores all of the Web interface GUI settings except for license keys, network settings, email server name, user settings, and printer settings. Also, event information is NOT stored in a configuration backup file.*

Last configuration load **reinstalled a previous config** (load date : Mon Feb 10 14:56:01 2014).

A previous configuration exists (date : Mon Feb 10 14:56:01 2014) and can be installed.
This action will restart the server software.

Backup the Current Configuration

List of Configuration Backup Files
2013_07_25_IPAWSDEMO_config.zip
Currently found 74 backup configuration file(s).

Download selected configuration file
'2013_07_25_IPAWSDEMO_config.zip'.

Selected Config File Rename Interface
To rename type new name (no spaces!) and select Rename Selected Configuration File button
2013_07_25_IPAWSDEMO_config.zip

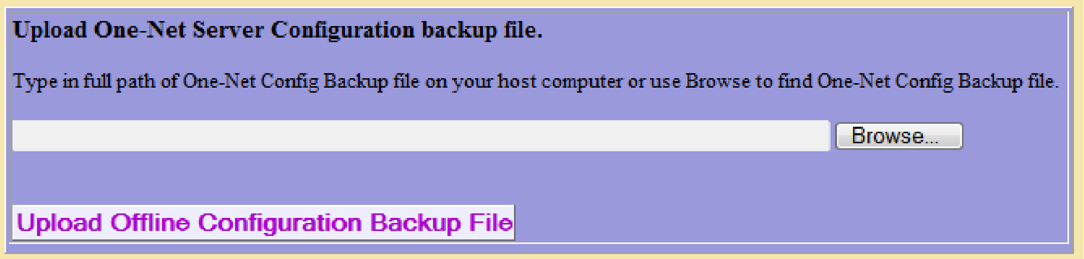
Delete Selected Configuration File *(Warning, no confirmation!)*

Selected configuration dated : Tue Aug 20 13:37:27 2013.
Installation will restart the server software.
Selected configuration contains audio levels.
□ **Install Audio Levels.**
Disabled. *Check to install the config audio levels.*
□ **Install Email recipients.**
Disabled. *Check to install the embedded Email recipients.*

Install Selected Configuration
Click to view Configuration Installation Log file

Setup > Server > Configuration Mgmt: After clicking "Make Backup"

Upload Offline Configuration Backup file
Clicking on this button will allow you to start an upload of a previously stored configuration file. This is useful if you want to configure multiple units with the same configuration, and for restoring a configuration that has been changed.



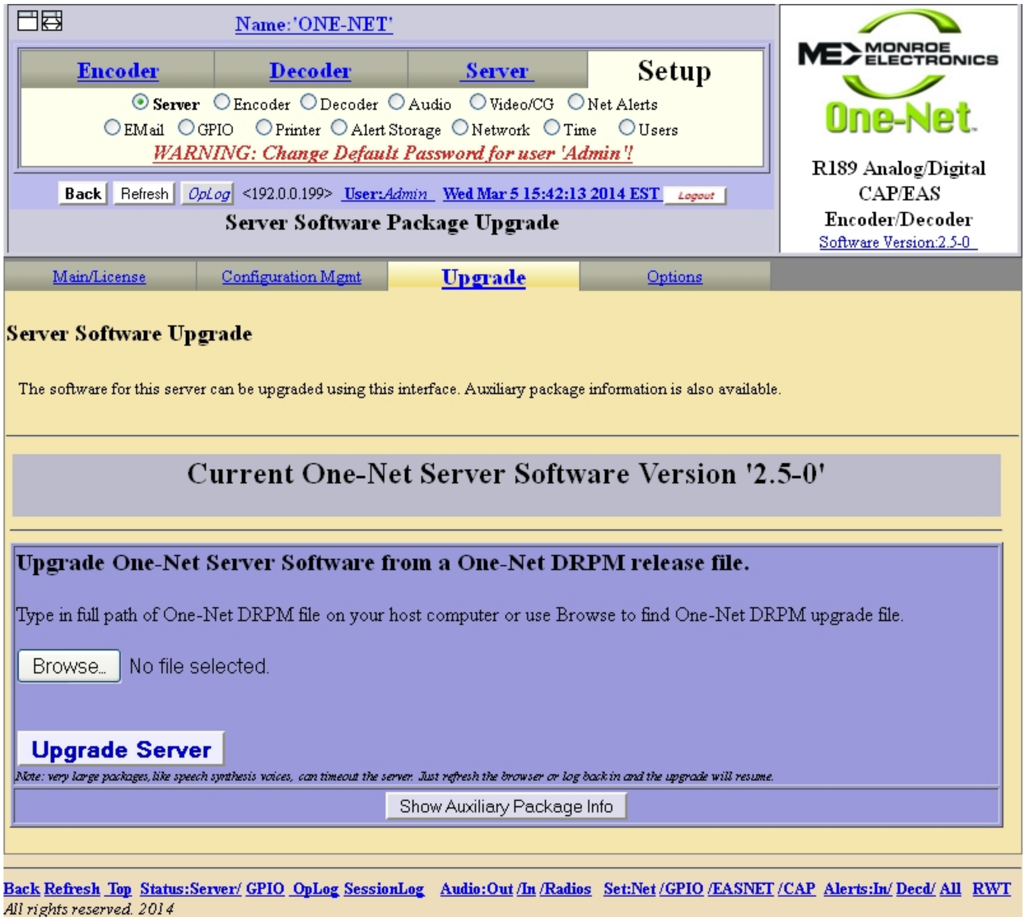
Upload One-Net Server Configuration backup file.

Type in full path of One-Net Config Backup file on your host computer or use Browse to find One-Net Config Backup file.

Setup > Server > Configuration Mgmt: Upload Configuration Backup File

4.1.3 Upgrade

Upgrade One-Net^{SE} Software
One-Net^{SE} software can be conveniently upgraded through the Web interface with this feature. One-Net^{SE} upgrades are done using RPM files. The RPM file must be available from or on your local host computers file system to use this feature. Type the path name of the file into the text box, or browse your local computer's file system until you locate the RPM file. Then click Upgrade Server. A confirmation page will allow you to continue with or cancel the upgrade. After accepting the upgrade, status will be returned about the file if it is not a correct upgrade file. Otherwise, you will be logged off the One-Net^{SE} Web interface and will be directed to log back in after a short waiting period.


Name:'ONE-NET'
Encoder
Decoder
Server
Setup
● Server ○ Encoder ○ Decoder ○ Audio ○ Video/CG ○ Net Alerts
○ EMail ○ GPIO ○ Printer ○ Alert Storage ○ Network ○ Time ○ Users
Back
Refresh
OpLog
<192.0.0.199>
User:Admin
Wed Mar 5 15:42:13 2014 EST
Logout
MONROE ELECTRONICS
One-Net
R189 Analog/Digital
CAP/EAS
Encoder/Decoder
Software Version:2.5-0
Main/License
Configuration Mgmt
Upgrade
Options
Browse...
No file selected.
Upgrade Server
Show Auxiliary Package Info
Back Refresh Top Status:Server/ GPIO OpLog SessionLog Audio:Out /In /Radios Set:Net /GPIO /EASNET /CAP Alerts:In/ Decd/ All RWT
All rights reserved. 2014

WARNING: Change Default Password for user 'Admin'!

Server Software Package Upgrade

Server Software Upgrade

The software for this server can be upgraded using this interface. Auxiliary package information is also available.

Current One-Net Server Software Version '2.5-0'

Upgrade One-Net Server Software from a One-Net DRPM release file.

Type in full path of One-Net DRPM file on your host computer or use Browse to find One-Net DRPM upgrade file.

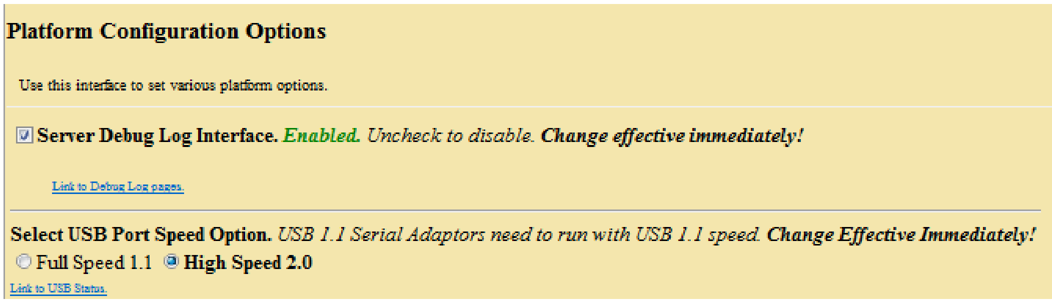
Note: very large packages, like speech synthesis voices, can timeout the server. Just refresh the browser or log back in and the upgrade will resume.

Setup > Server > Upgrade

4.1.4 Options

Server Debug Log Interface: When enabled, this feature allows detailed debugging output to be generated during One-Net operation and viewed from the **Server > Debuglogs** pages. Check the toggle box to enable, or uncheck to disable. *This option should only be enabled during difficult troubleshooting or under the direction of DAS customer support.* The change is effective after use of the **Restart Server** button.

Select USB Port Speed Option: If your USB serial ports require a different speed, use this option to change that.



Platform Configuration Options

Use this interface to set various platform options.

☑ **Server Debug Log Interface.** *Enabled. Uncheck to disable.* ***Change effective immediately!***

Select USB Port Speed Option. *USB 1.1 Serial Adaptors need to run with USB 1.1 speed.* ***Change Effective Immediately!***

○ Full Speed 1.1 ● **High Speed 2.0**

Setup > Server > Options

4.2 Setup > Network:

4.2.1 Configuration

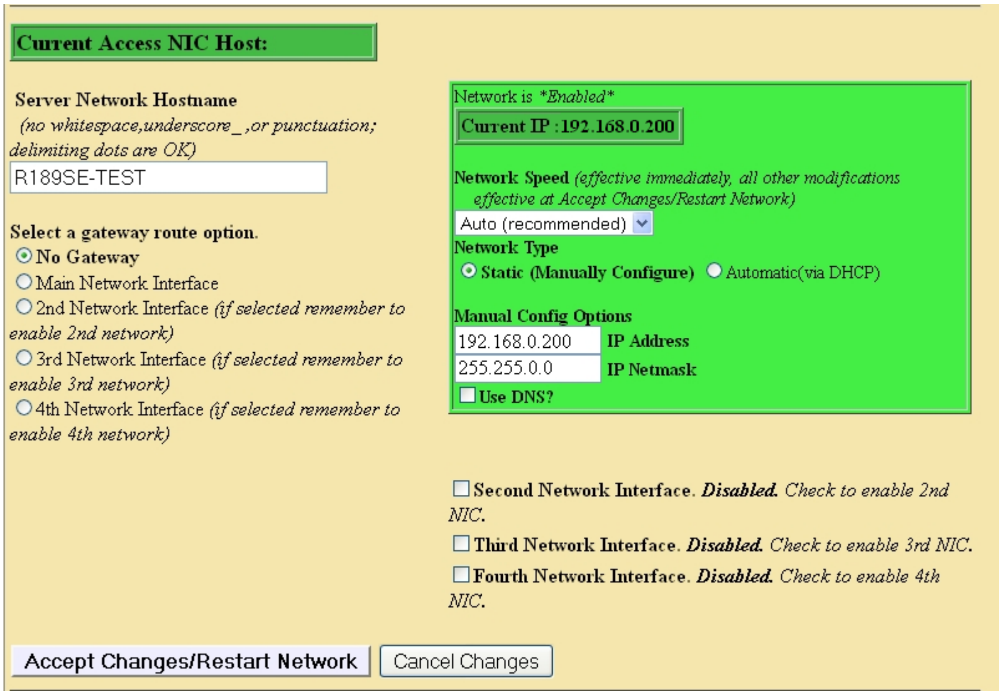
Use this page to configure the One-Net^{SE} to operate on a network(s), such as:

- One-Net^{SE} network address information
- A static IP address; or
- DHCP to automatically acquire an IP assignment
- Set the Netmask, optional DNS (domain name services), and an optional gateway value.
- Add static routes.

Information on current network configuration is displayed on the bottom half of the page. See the following sections for more information.

Network Type > Static: Default IP Address

When **Network Type** > **Static** is selected, the One-Net^{SE} by default is given a static IP address of 192.168.0.200 [**Manual Config Options**]. The default IP Netmask is 255.255.0.0. No default DNS or gateway is configured. The "Network Speed" (above the Network Type) is recommended to be set to "Automatic".



Current Access NIC Host:

Server Network Hostname
(no whitespace,underscore _,or punctuation; delimiting dots are OK)
R189SE-TEST

Select a gateway route option.
● **No Gateway**
○ Main Network Interface
○ 2nd Network Interface *(if selected remember to enable 2nd network)*
○ 3rd Network Interface *(if selected remember to enable 3rd network)*
○ 4th Network Interface *(if selected remember to enable 4th network)*

Network is **Enabled**
Current IP : 192.168.0.200

Network Speed *(effective immediately, all other modifications effective at Accept Changes/Restart Network)*
Auto (recommended)
Network Type
● **Static (Manually Configure)** ○ Automatic(via DHCP)

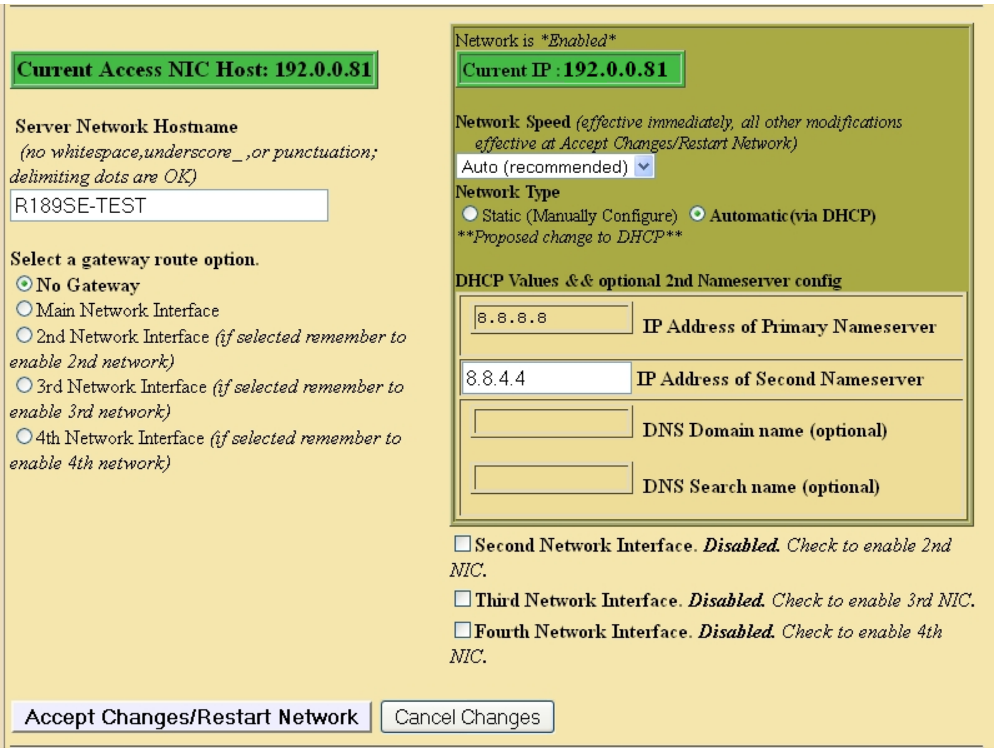
Manual Config Options
192.168.0.200 **IP Address**
255.255.0.0 **IP Netmask**
□ **Use DNS?**

□ **Second Network Interface**. ***Disabled.*** *Check to enable 2nd NIC.*
□ **Third Network Interface**. ***Disabled.*** *Check to enable 3rd NIC.*
□ **Fourth Network Interface**. ***Disabled.*** *Check to enable 4th NIC.*

Setup > Network > Configuration: Static IP

Network Type > Automatic: Set the IP address using DHCP

DHCP is a very convenient way to network a computer. It requires that your LAN be running an accessible DHCP server. When DHCP is used, the IP address, the Netmask and a DNS server are automatically granted. To use DHCP on the One-Net^{SE} select **Network Type > Automatic (via DHCP)**. Then click Accept Changes. See the example below. Once the DHCP setting is accepted, the One-Net^{SE} will log you off. After a few seconds wait, you can then log back in.



Current Access NIC Host: 192.0.0.81

Server Network Hostname
(no whitespace,underscore _ ,or punctuation; delimiting dots are OK)
R189SE-TEST

Select a gateway route option.
● **No Gateway**
○ Main Network Interface
○ 2nd Network Interface *(if selected remember to enable 2nd network)*
○ 3rd Network Interface *(if selected remember to enable 3rd network)*
○ 4th Network Interface *(if selected remember to enable 4th network)*

Network is **Enabled**
Current IP : **192.0.0.81**

Network Speed *(effective immediately, all other modifications effective at Accept Changes/Restart Network)*
Auto (recommended)

Network Type
○ Static (Manually Configure) ● **Automatic(via DHCP)**
Proposed change to DHCP

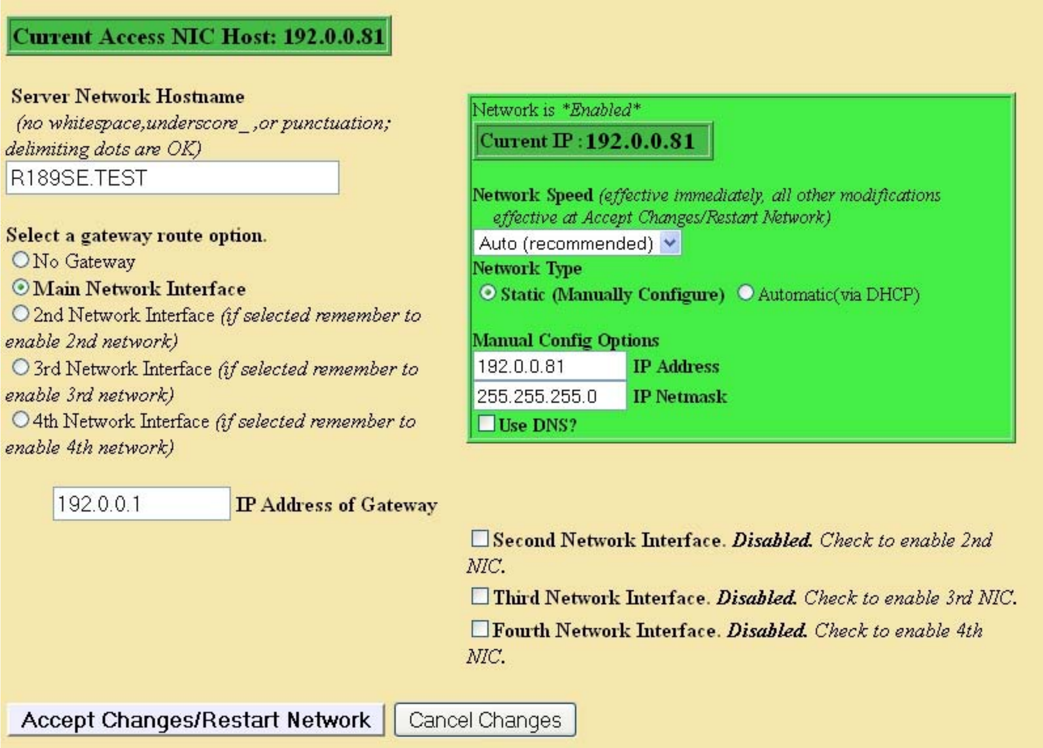
DHCP Values && optional 2nd Nameserver config

8.8.8.8	**IP Address of Primary Nameserver**
8.8.4.4	**IP Address of Second Nameserver**
	DNS Domain name (optional)
	DNS Search name (optional)

□ **Second Network Interface**. ***Disabled.*** *Check to enable 2nd NIC.*
□ **Third Network Interface**. ***Disabled.*** *Check to enable 3rd NIC.*
□ **Fourth Network Interface**. ***Disabled.*** *Check to enable 4th NIC.*

Setup > Network > Configuration: DHCP IP

Network Type > Static: Setting the IP address manually
To set a new static IP address, select **Network Type > Static**. Then fill in the values for the desired IP address and Netmask. If needed, also select Use DNS and/or check for addition of a default gateway route.



Current Access NIC Host: 192.0.0.81

Server Network Hostname
(no whitespace,underscore _ ,or punctuation; delimiting dots are OK)
R189SE.TEST

Select a gateway route option.
○ No Gateway
● Main Network Interface
○ 2nd Network Interface *(if selected remember to enable 2nd network)*
○ 3rd Network Interface *(if selected remember to enable 3rd network)*
○ 4th Network Interface *(if selected remember to enable 4th network)*

192.0.0.1 IP Address of Gateway

Network is **Enabled**
Current IP : 192.0.0.81

Network Speed *(effective immediately, all other modifications effective at Accept Changes/Restart Network)*
Auto (recommended)
Network Type
● Static (Manually Configure) ○ Automatic(via DHCP)

Manual Config Options
192.0.0.81 IP Address
255.255.255.0 IP Netmask
□ Use DNS?

□ Second Network Interface. ***Disabled.*** *Check to enable 2nd NIC.*
□ Third Network Interface. ***Disabled.*** *Check to enable 3rd NIC.*
□ Fourth Network Interface. ***Disabled.*** *Check to enable 4th NIC.*

Setup > Network > Configuration: Set-up Static IP manually

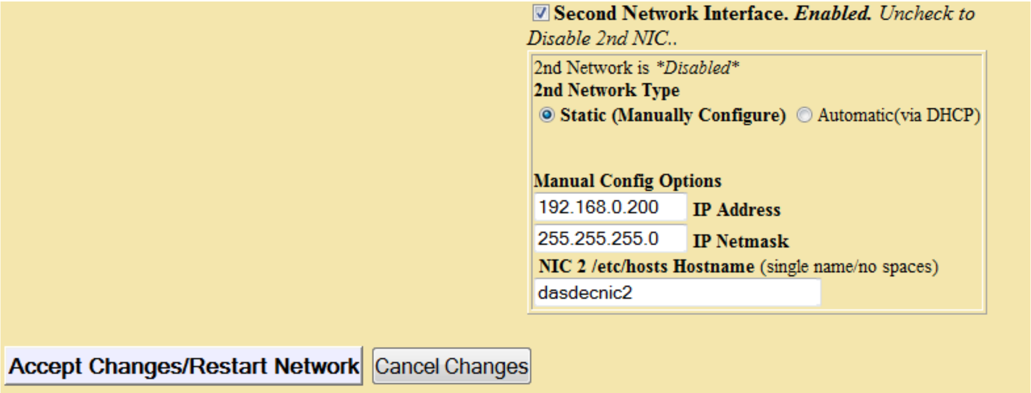
Enter the corresponding values. The example shows a new IP address of 192.0.0.81 and a Netmask of 255.255.255.0, as well as a DNS and gateway configuration. To set the new values, select Accept Changes.

Once the new settings are accepted, the One-Net^{SE} will log you off. After a few seconds wait, you can log back in on the redirected address on the Login page, as before.

IMPORTANT! You must be CAREFUL when configuring a static network address if you are configuring from a remote host. If an address, which is inaccessible to your network, is accepted for the One-Net^{SE}, you will be unable to log back in from the remote host. If this happens to you accidentally or on purpose, you will have to directly login to the One-Net^{SE} from a directly connected VGA monitor, keyboard and mouse. You can always configure the One-Net^{SE} from this direct connection.

2nd Network

There is a 2nd network interface that comes standard with the One-Net^{SE}. Programming the 2nd NIC is done by first enabling the 2nd NIC by clicking on the box to the left of the “Second Network Interface”. If an external NIC is seen by the One-Net^{SE}, the setup box will turn green. The setup boxes are exactly the same as the first NIC. A static address, DHCP, and a gateway route can be used.



☑ **Second Network Interface.** ***Enabled.*** *Uncheck to Disable 2nd NIC..*

2nd Network is **Disabled**

2nd Network Type

● **Static (Manually Configure)** ○ Automatic(via DHCP)

Manual Config Options

192.168.0.200 **IP Address**

255.255.255.0 **IP Netmask**

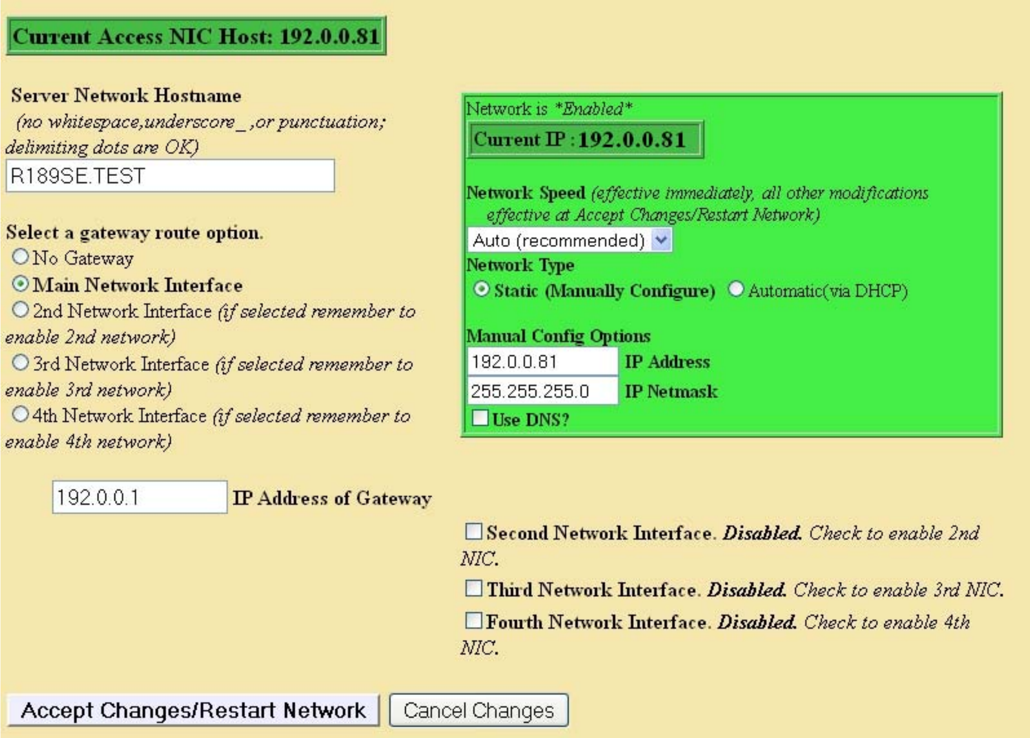
NIC 2 /etc/hosts Hostname (single name/no spaces)

dasdecnic2

Setup > Network > Configuration: 2nd NIC

3rd and 4th Network

If the optional NIC daughter board was purchased with your One-Net^{SE}, you will have the ability to enable a 3rd and 4th network interface. The setup is the same as the first two networks except for the fact that DHCP is not supported. A static IP address must be used.



Current Access NIC Host: 192.0.0.81

Server Network Hostname *(no whitespace,underscore _,or punctuation; delimiting dots are OK)*

R189SE.TEST

Select a gateway route option.

○ No Gateway

● **Main Network Interface**

○ 2nd Network Interface *(if selected remember to enable 2nd network)*

○ 3rd Network Interface *(if selected remember to enable 3rd network)*

○ 4th Network Interface *(if selected remember to enable 4th network)*

192.0.0.1 **IP Address of Gateway**

Network is **Enabled**

Current IP : 192.0.0.81

Network Speed *(effective immediately, all other modifications effective at Accept Changes/Restart Network)*

Auto (recommended)

Network Type

● **Static (Manually Configure)** ○ Automatic(via DHCP)

Manual Config Options

192.0.0.81 **IP Address**

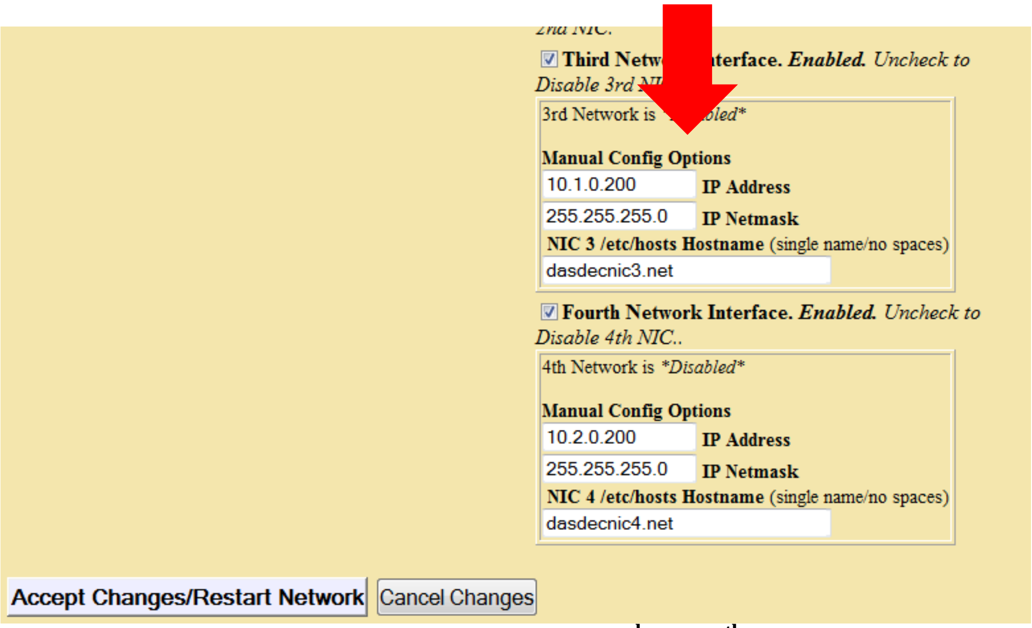
255.255.255.0 **IP Netmask**

□ **Use DNS?**

□ **Second Network Interface.** ***Disabled.*** *Check to enable 2nd NIC.*

□ **Third Network Interface.** ***Disabled.*** *Check to enable 3rd NIC.*

□ **Fourth Network Interface.** ***Disabled.*** *Check to enable 4th NIC.*



2nd NIC.

☑ **Third Netw** **terface.** ***Enabled.*** *Uncheck to Disable 3rd N*

3rd Network is *oled**

Manual Config Options

10.1.0.200 **IP Address**

255.255.255.0 **IP Netmask**

NIC 3 /etc/hosts Hostname (single name/no spaces)

dasdecnic3.net

☑ **Fourth Network Interface.** ***Enabled.*** *Uncheck to Disable 4th NIC..*

4th Network is **Disabled**

Manual Config Options

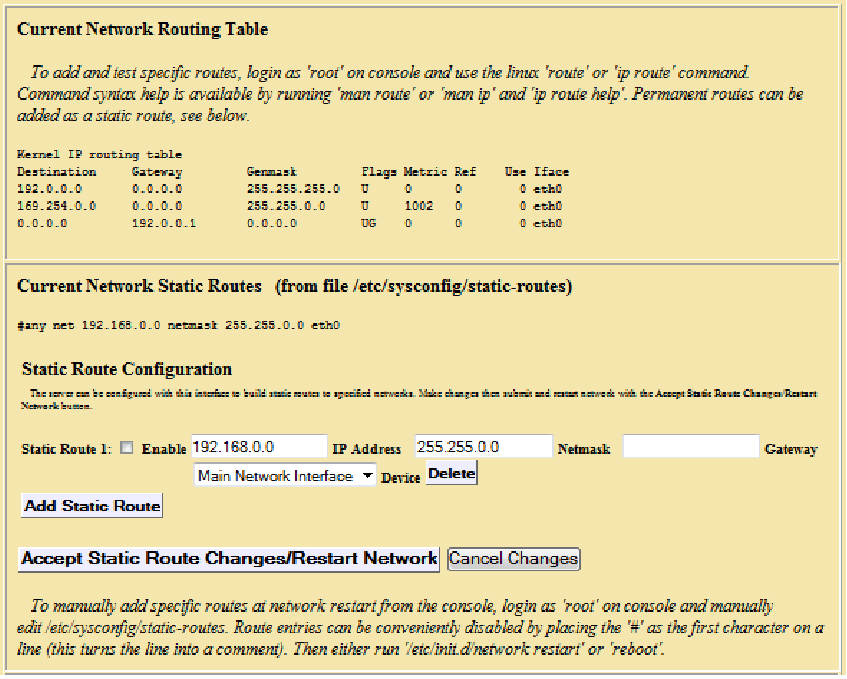
10.2.0.200 **IP Address**

255.255.255.0 **IP Netmask**

NIC 4 /etc/hosts Hostname (single name/no spaces)

dasdecnic4.net

Setup > Network > Configuration: 3rd and 4th NIC option



Current Network Routing Table

To add and test specific routes, login as 'root' on console and use the linux 'route' or 'ip route' command. Command syntax help is available by running 'man route' or 'man ip' and 'ip route help'. Permanent routes can be added as a static route, see below.

```
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
192.0.0.0       0.0.0.0         255.255.255.0   U     0      0        0 eth0
169.254.0.0     0.0.0.0         255.255.0.0     U     1002   0        0 eth0
0.0.0.0         192.0.0.1       0.0.0.0         UG    0      0        0 eth0
```

Current Network Static Routes (from file /etc/sysconfig/static-routes)

```
#any net 192.168.0.0 netmask 255.255.0.0 eth0
```

Static Route Configuration

The server can be configured with this interface to build static routes to specified networks. Make changes then submit and restart network with the Accept Static Route Changes/Restart Network button.

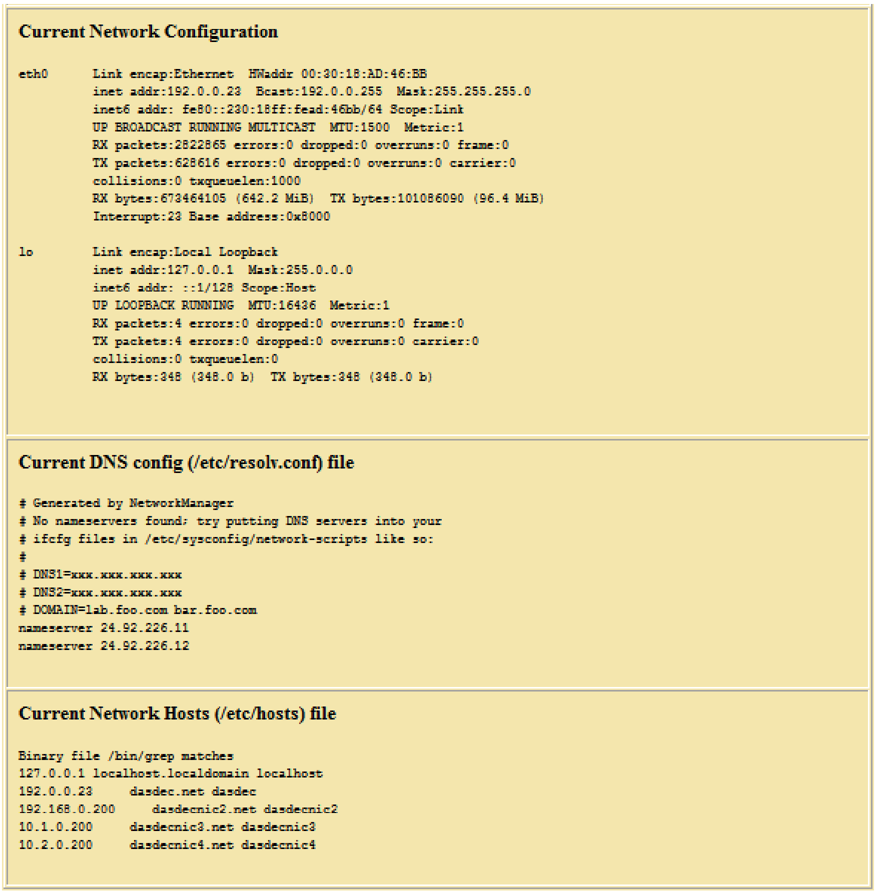
Static Route 1: ☐ **Enable** 192.168.0.0 **IP Address** 255.255.0.0 **Netmask** **Gateway**

Main Network Interface **Device**

To manually add specific routes at network restart from the console, login as 'root' on console and manually edit /etc/sysconfig/static-routes. Route entries can be conveniently disabled by placing the '#' as the first character on a line (this turns the line into a comment). Then either run '/etc/init.d/network restart' or 'reboot'.

Setup > Network > Configuration: Current Network Routing Table

Network Status Information



Current Network Configuration

```
eth0      Link encap:Ethernet  HWaddr 00:30:18:AD:46:BB
          inet addr:192.0.0.23  Bcast:192.0.0.255  Mask:255.255.255.0
          inet6 addr: fe80::230:18ff:fead:46bb/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:2822865 errors:0 dropped:0 overruns:0 frame:0
          TX packets:628616 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:673464105 (642.2 MiB)  TX bytes:101086090 (96.4 MiB)
          Interrupt:23 Base address:0x8000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:4 errors:0 dropped:0 overruns:0 frame:0
          TX packets:4 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:348 (348.0 b)  TX bytes:348 (348.0 b)
```

Current DNS config (/etc/resolv.conf) file

```
# Generated by NetworkManager
# No nameservers found; try putting DNS servers into your
# ifcfg files in /etc/sysconfig/network-scripts like so:
#
# DNS1=xxx.xxx.xxx.xxx
# DNS2=xxx.xxx.xxx.xxx
# DOMAIN=lab.foo.com bar.foo.com
nameserver 24.92.226.11
nameserver 24.92.226.12
```

Current Network Hosts (/etc/hosts) file

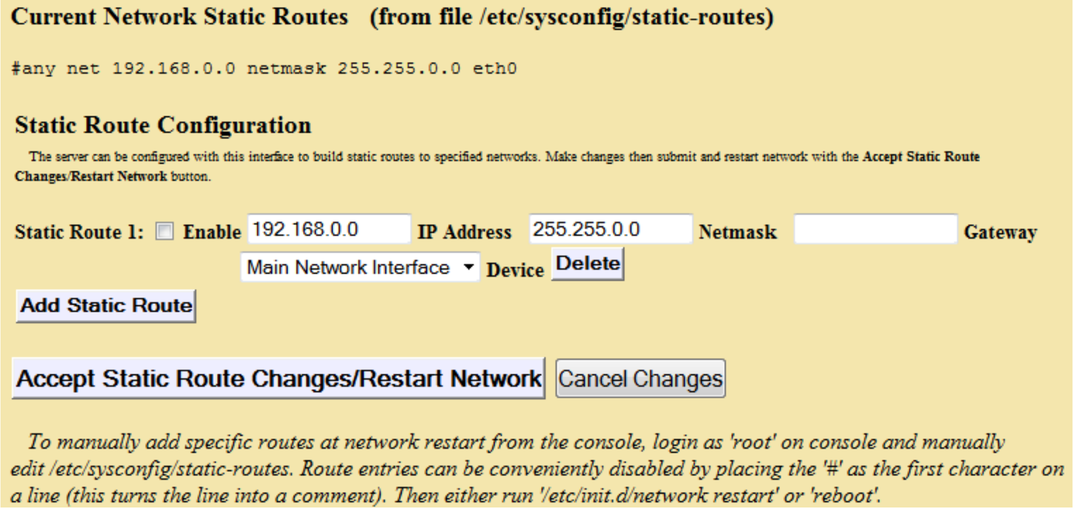
```
Binary file /bin/grep matches
127.0.0.1 localhost.localdomain localhost
192.0.0.23     dasdec.net dasdec
192.168.0.200     dasdecnic2.net dasdecnic2
10.1.0.200     dasdecnic3.net dasdecnic3
10.2.0.200     dasdecnic4.net dasdecnic4
```

Setup > Network > Configuration: Current Network Configuration

Tables at the bottom of the **Setup Network** page show the current network routes and network address information.

Static Route Configuration

The Main NIC 2nd, 3rd, and 4th NIC's can be configured to use static routes. The IP address, subnet mask and gateway setting can be programmed for each route.



Current Network Static Routes (from file /etc/sysconfig/static-routes)

```
#any net 192.168.0.0 netmask 255.255.0.0 eth0
```

Static Route Configuration

The server can be configured with this interface to build static routes to specified networks. Make changes then submit and restart network with the **Accept Static Route Changes/Restart Network** button.

Static Route 1: □ **Enable** 192.168.0.0 **IP Address** 255.255.0.0 **Netmask** **Gateway**

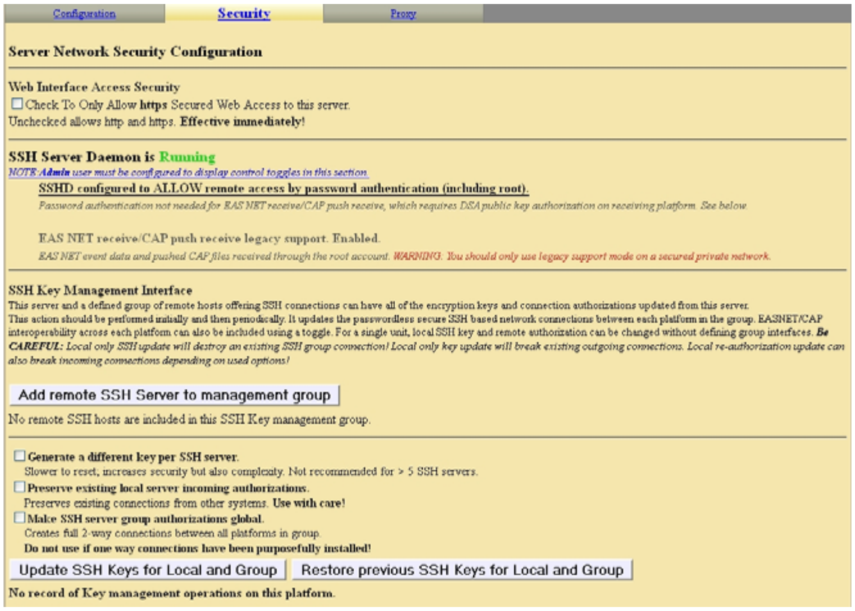
Main Network Interface **Device**

To manually add specific routes at network restart from the console, login as 'root' on console and manually edit /etc/sysconfig/static-routes. Route entries can be conveniently disabled by placing the '#' as the first character on a line (this turns the line into a comment). Then either run '/etc/init.d/network restart' or 'reboot'.

Setup > Network > Configuration: Current Network Static Routes

4.2.2 Security

The One-Net^{SE} can be configured to allow unencrypted HTTP access or only SSL encrypted HTTPS access. By placing a check mark in the box only SSL encrypted HTTPS access will be allowed.


Configuration
Security
Proxy
Add remote SSH Server to management group
Update SSH Keys for Local and Group
Restore previous SSH Keys for Local and Group

Server Network Security Configuration

Web Interface Access Security
□ Check To Only Allow **https** Secured Web Access to this server.
Unchecked allows http and https. **Effective immediately!**

SSH Server Daemon is Running
*NOTE:**Admin** user must be configured to display control toggles in this section.*
SSHD configured to ALLOW remote access by password authentication (including root).
Password authentication not needed for EAS NET receive/CAP push receive, which requires DSA public key authorization on receiving platform. See below

EAS NET receive/CAP push receive legacy support. Enabled.
EAS NET event data and pushed CAP files received through the root account. WARNING: You should only use legacy support mode on a secured private network.

SSH Key Management Interface
This server and a defined group of remote hosts offering SSH connections can have all of the encryption keys and connection authorizations updated from this server.
This action should be performed initially and then periodically. It updates the passwordless secure SSH based network connections between each platform in the group. EASNET/CAP interoperability across each platform can also be included using a toggle. For a single unit, local SSH key and remote authorization can be changed without defining group interfaces. ***Be CAREFUL:** Local only SSH update will destroy an existing SSH group connection! Local only key update will break existing outgoing connections. Local re-authorization update can also break incoming connections depending on used options!*

No remote SSH hosts are included in this SSH Key management group.

□ **Generate a different key per SSH server.**
Slower to reset; increases security but also complexity. Not recommended for > 5 SSH servers.
□ **Preserve existing local server incoming authorizations.**
Preserves existing connections from other systems. **Use with care!**
□ **Make SSH server group authorizations global.**
Creates full 2-way connections between all platforms in group.
Do not use if one way connections have been purposefully installed!

No record of Key management operations on this platform.

Setup > Network > Security

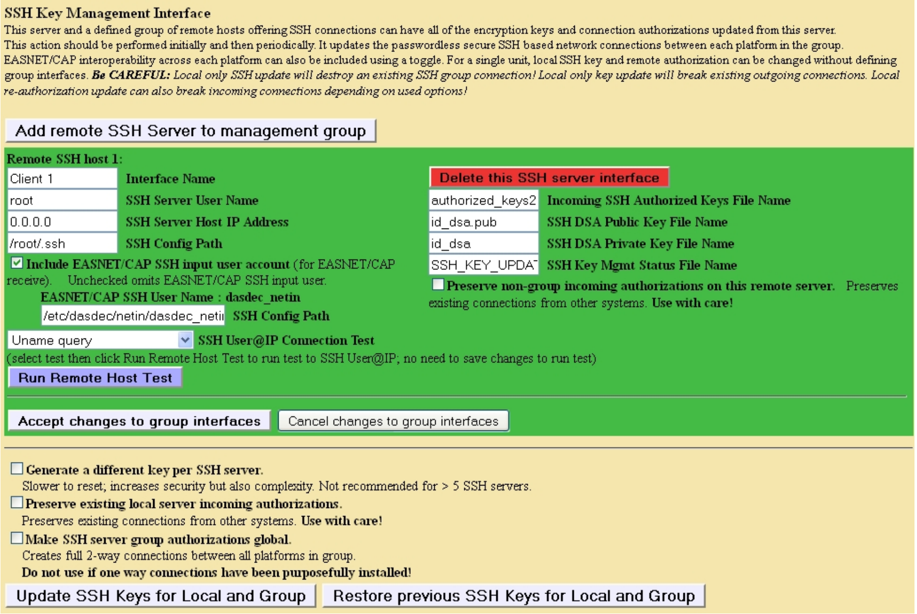
SSH Key Management Interface

WARNING: DO NOT MODIFY any SSH Keys without consulting with the factory!

Secure Shell is used for EAS NET network communication/control between a DASDEC II and other EAS NET compatible platforms (including other DASDEC II's). SSH is a secure communications method that relies on public/private key encryption. For a DASDEC II to communicate with another platform via SSH, the public key from the DASDEC II's public/private key pair must be "authorized" on the remote platform.

Authorization usually is achieved by copying the public key into a file on the remote host. The DASDEC II uses the open source package OpenSSH for SSH features. This package has a file called "authorized_keys2" under /root/.ssh/ to hold the authorized public keys from remote platforms. Authorization allows secure access only from the holder of the public key's corresponding private key. Even though this method of encryption and secure access is very safe, it is still as a good idea to update the public/private keys from time to time. This can be tedious to do manually between a set of servers that already intercommunicate. The DASDEC II SSH Key Management interface greatly simplifies this process. It allows a group of remote hosts offering SSH connections to have all of the encryption keys updated from the current DASDEC II location. This updates and maintains secure SSH based network interoperability for EAS NET across each platform with a single operation.

To use this interface correctly, you must add client interface descriptors for each remote platform in the managed group. The **Add Interface** button is used to create each descriptor. When a descriptor is added using this button, there is no need to confirm the addition. The screen shot below shows a single remote client descriptor that was added using **Add Interface**. Add as many as descriptors as needed. *(EAS NET allows up to 8 connections.)*


SSH Key Management Interface

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Remote SSH host 1:

Client 1	**Interface Name**		
root	**SSH Server User Name**	authorized_keys2	**Incoming SSH Authorized Keys File Name**
0.0.0.0	**SSH Server Host IP Address**	id_dsa.pub	**SSH DSA Public Key File Name**
/root/.ssh	**SSH Config Path**	id_dsa	**SSH DSA Private Key File Name**
		SSH_KEY_UPDA	**SSH Key Mgmt Status File Name**

☑ **Include EASNET/CAP SSH input user account** (for EASNET/CAP receive). Unchecked omits EASNET/CAP SSH input user.
EASNET/CAP SSH User Name : dasdec_netin
/etc/dasdec/netin/dasdec_neti **SSH Config Path**

□ **Preserve non-group incoming authorizations on this remote server.** Preserves existing connections from other systems. **Use with care!**

Uname query **SSH User@IP Connection Test**
(select test then click Run Remote Host Test to run test to SSH User@IP; no need to save changes to run test)

Run Remote Host Test
Accept changes to group interfaces
Cancel changes to group interfaces

□ **Generate a different key per SSH server.**
Slower to reset; increases security but also complexity. Not recommended for > 5 SSH servers.
□ **Preserve existing local server incoming authorizations.**
Preserves existing connections from other systems. **Use with care!**
□ **Make SSH server group authorizations global.**
Creates full 2-way connections between all platforms in group.
Do not use if one way connections have been purposefully installed!

Update SSH Keys for Local and Group
Restore previous SSH Keys for Local and Group

SSH Key Management Interface

Once a remote host client descriptor interface is added, it must be configured. Reasonable default values for SSH connection to the remote host are provided (except for IP address). Type in the IP Address and change the remote host User name, the SSH configuration path (directory), the SSH authorized keys file name, DSA public key and private key file names, and management status file name if needed.

Changes to these Host text field values are not saved until you click Accept SSH Host Text Changes. You can cancel changes by clicking the Cancel SSH Host Text Changes button.

A very useful feature of this interface is that it provides network connection tests to remote hosts. Set the selector **SSH Connection Test** to the desired test and click the button Test Host.

You can try a variety of tests to prove SSH connectivity as well as network connectivity via "ping". Six tests are supported:

1. "Ping". Use a simple network ping to test if the base network route to a remote host exists. ***To test basic network connectivity****, the ping test can be used without regard to the SSH field configuration. Set the IP address (numeric dot.decimal format unless DNS is enabled) and run the Ping test using the* Test Host *button.*
2. "Uname" query via SSH *(see example above)*. This will attempt to get the operating system name from the remote host.
3. "Date" query via SSH. This will attempt to get the date and time from the remote host.
4. SCP test via SSH. This will attempt to copy a test file to the remote host.
5. "Key Management Status" query via SSH. This will attempt to retrieve the current state of the DASDEC II key management status from the remote host.
6. "Get Public Key" query via SSH. This will attempt to retrieve the public key from the remote host.

Select a test and click the Test Host button to see the test results. Be patient; it can take several seconds to run some of these tests. Results are printed just below the Test Host button.

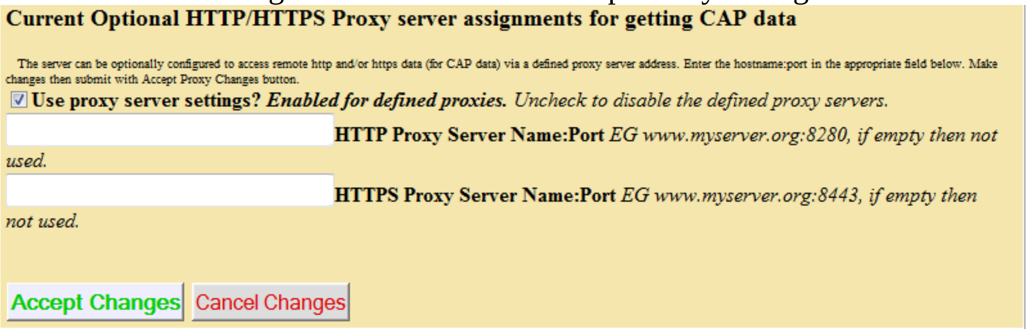
When you have all of the remote host descriptors entered properly, and you have confirmed SSH connectivity to each remote host, you may safely update the public/private keys for the entire group by clicking on the button Update SSH Keys for Group. You may also return to the prior set of keys by clicking the button Restore previous SSH Keys for Group

The status of the last group management operation is printed just below the **Update SSH Keys for Group** button. This gives a date and useful information about the last SSH management operation performed from this DASDEC II.

The page display areas below the SSH Management interface provide two more useful pieces of information about SSH. The first display shows the current SSH DSA Public Encryption Key and its installation date. Below this is a printout of the "authorized keys" file. This shows remote hosts authorized for SSH connections to this DASDEC II.

4.2.3 Proxy

Current Optional HTTP/HTTPS Proxy server assignments for getting CAP data
The server can be optionally configured to access remote http and/or https data (for CAP data) via a defined proxy server address. Enter the hostname:port in the appropriate field below. Make changes then submit with Accept Proxy Changes button.



Current Optional HTTP/HTTPS Proxy server assignments for getting CAP data

The server can be optionally configured to access remote http and/or https data (for CAP data) via a defined proxy server address. Enter the hostname:port in the appropriate field below. Make changes then submit with Accept Proxy Changes button.

☑ **Use proxy server settings?** ***Enabled for defined proxies.*** *Uncheck to disable the defined proxy servers.*

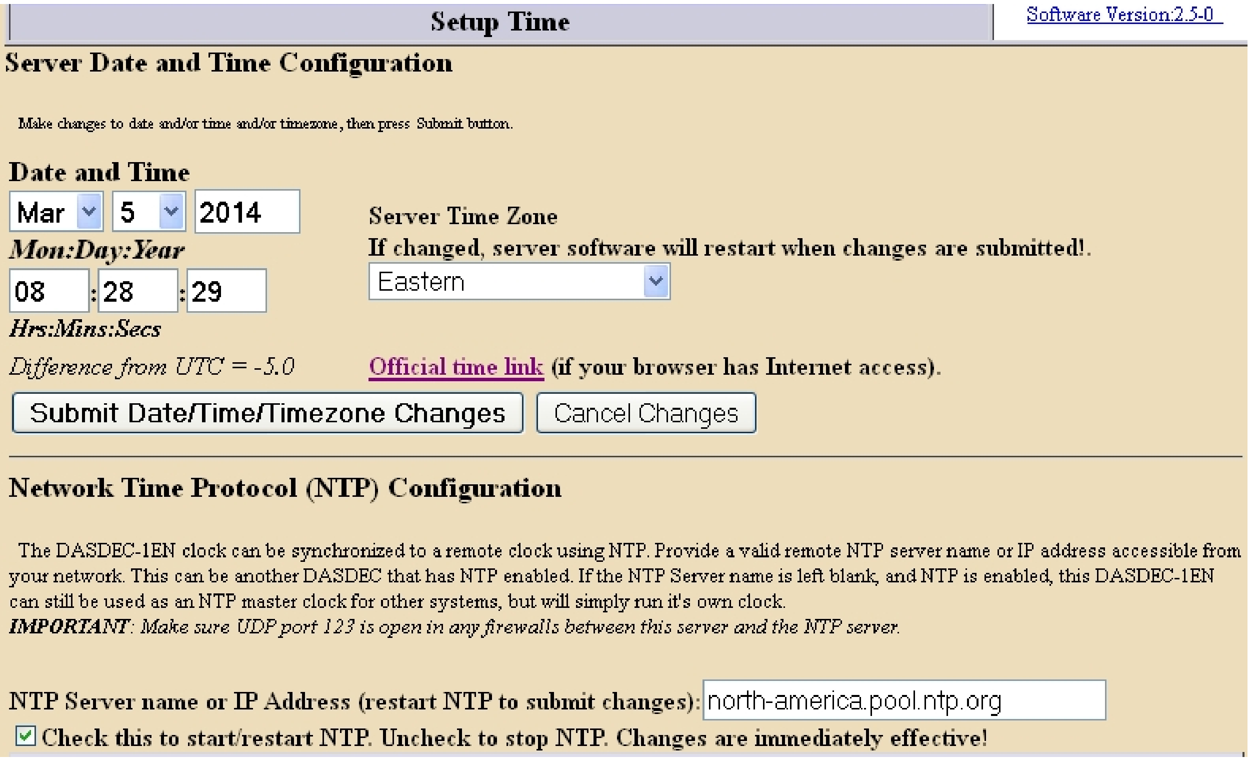
HTTP Proxy Server Name:Port *EG www.myserver.org:8280, if empty then not used.*

HTTPS Proxy Server Name:Port *EG www.myserver.org:8443, if empty then not used.*

Setup > Network > Proxy

4.3 Setup > Time: One-Net^{SE} Clock and NTP

The **Setup Time** page allows the hardware clock on the One-Net^{SE} to be set. Date, time, and time zone may be set.



Setup Time

Software Version:2.5-0

Server Date and Time Configuration

Make changes to date and/or time and/or timezone, then press Submit button.

Date and Time

Mar | 5 | 2014

Mon:Day:Year

08 : 28 : 29

Hrs:Mins:Secs

Difference from UTC = -5.0

Server Time Zone

If changed, server software will restart when changes are submitted!.

Eastern

Official time link (if your browser has Internet access).

Network Time Protocol (NTP) Configuration

The DASDEC-1EN clock can be synchronized to a remote clock using NTP. Provide a valid remote NTP server name or IP address accessible from your network. This can be another DASDEC that has NTP enabled. If the NTP Server name is left blank, and NTP is enabled, this DASDEC-1EN can still be used as an NTP master clock for other systems, but will simply run it's own clock.
***IMPORTANT**: Make sure UDP port 123 is open in any firewalls between this server and the NTP server.*

NTP Server name or IP Address (restart NTP to submit changes): north-america.pool.ntp.org

☑ Check this to start/restart NTP. Uncheck to stop NTP. Changes are immediately effective!

Setup > Time

One-Net^{SE} Date and Time Configuration
Make changes to date and/or time and/or time zone, and then click Submit changes. If Time zone is changed, the One-Net^{SE} will restart and you will be forced to log back into the Web interface. If the time is set forward far enough, you will also be forced to log back into the One-Net^{SE} Web interface.

Network Time Protocol (NTP) Configuration
The One-Net^{SE} supports Network Time Protocol (NTP) to synchronize its clock to another clock over a network. This will synchronize the One-Net^{SE} to an atomic clock over the Internet, or to another computer running NTP on your LAN, or to another One-Net^{SE} running as an NTP server on your LAN.

NTP Server name or IP Address:
You must enter a name of a remote NTP server that is accessible from the One-Net^{SE} LAN.

Public NTP servers can be viewed by following the link provided.

NOTE: The computer hosting the Web browser must have Internet access to follow this link, and the One-NetSE must be able to contact the chosen NTP server.

The checkbox for NTP must be checked to start NTP. If no NTP server name is entered and NTP is enabled, then the One-Net^{SE} will become an NTP server that can be pointed at from other One-Nets over the LAN.

4.4 Setup > Users

The **Setup Users** page can be used to manage user accounts on the One-Net^{SE}. From this page, you can add and delete user accounts, change the Web Interface passwords, and set user permission levels. The Admin account cannot be deleted, and only Admin can change the Admin password.

Edit One-Net^{SE} User Account Profile

Select account pull down. Select the user account to edit from this list. Under this menu is information about the selected user's current and last login information.

Permission Level. A permission level can be granted (for non-Admin users) as View Only, Basic Operation, Operation, Operation/Control, and Administration with this pull down menu. Pages in the One-Net^{SE} are granted a permission level for entry/access. For instance, only a user with Administration permission may access the **Setup** > **Users** page. Trying to access a One-Net^{SE} page without the proper permission level will result in a clear notification message.

Account Comment. A simple text comment can be attached to non-Admin user accounts.

Change Password. Enter the current password, then enter the new password twice in the fields provided. Only Admin can change the Admin password.

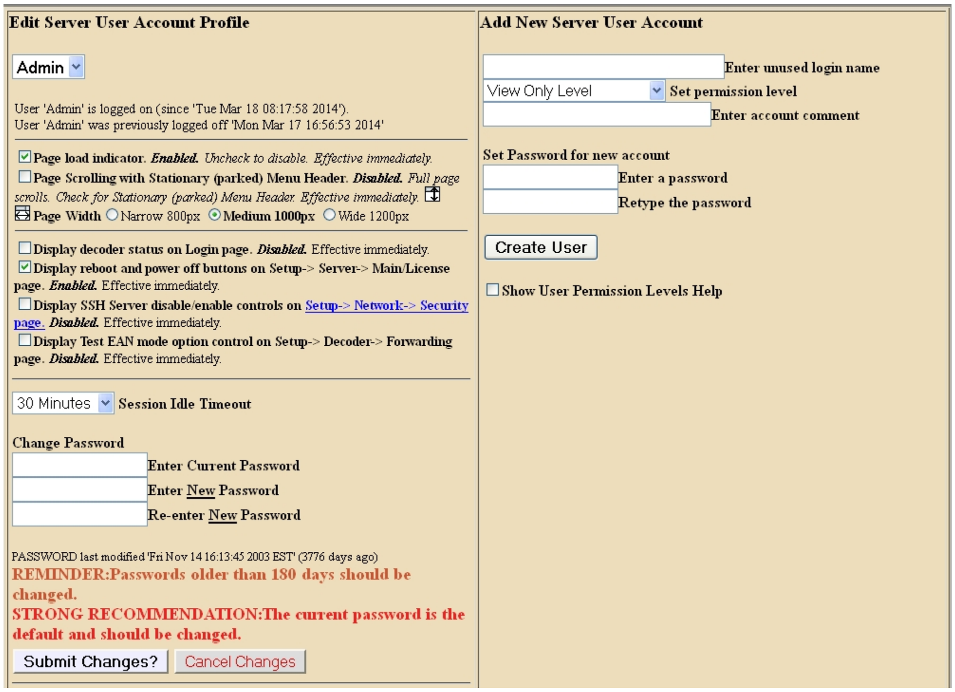
For these changes click Submit Changes. The changes are effective immediately.

Delete User. Non-Admin users can be deleted with this button.

NOTE: This is effective immediately

Add New One-Net^{SE} User Account Type

Enter information as directed on the screen and click Create User.



Edit Server User Account Profile

Admin ▾

User 'Admin' is logged on (since 'Tue Mar 18 08:17:58 2014').
User 'Admin' was previously logged off 'Mon Mar 17 16:56:53 2014'

☑ Page load indicator. *Enabled. Uncheck to disable. Effective immediately.*
☐ Page Scrolling with Stationary (parked) Menu Header. *Disabled. Full page scrolls. Check for Stationary (parked) Menu Header. Effective immediately.*
Page Width ○ Narrow 800px ● Medium 1000px ○ Wide 1200px

☐ Display decoder status on Login page. *Disabled.* Effective immediately.
☑ Display reboot and power off buttons on Setup-> Server-> Main/License page. *Enabled.* Effective immediately.
☐ Display SSH Server disable/enable controls on Setup-> Network-> Security page. *Disabled.* Effective immediately.
☐ Display Test EAN mode option control on Setup-> Decoder-> Forwarding page. *Disabled.* Effective immediately.

30 Minutes ▾ Session Idle Timeout

Change Password
Enter Current Password
Enter New Password
Re-enter New Password

PASSWORD last modified 'Fri Nov 14 16:13:45 2003 EST' (3776 days ago)
REMINDER:Passwords older than 180 days should be changed.
STRONG RECOMMENDATION:The current password is the default and should be changed.

Submit Changes? | Cancel Changes

Add New Server User Account

Enter unused login name
View Only Level ▾ Set permission level
Enter account comment

Set Password for new account
Enter a password
Retype the password

Create User

☐ Show User Permission Levels Help

Setup > Users

Session Idle Timeout

The amount of idle time before being logged out of the One-Net^{SE} is programmable. The default setting is 10 minutes.

Show User Permission Levels Help

Placing a check mark in this box will show the user the help screen for permission levels. This describes what settings/feature is available at each permission level.

4.5 Setup > Email

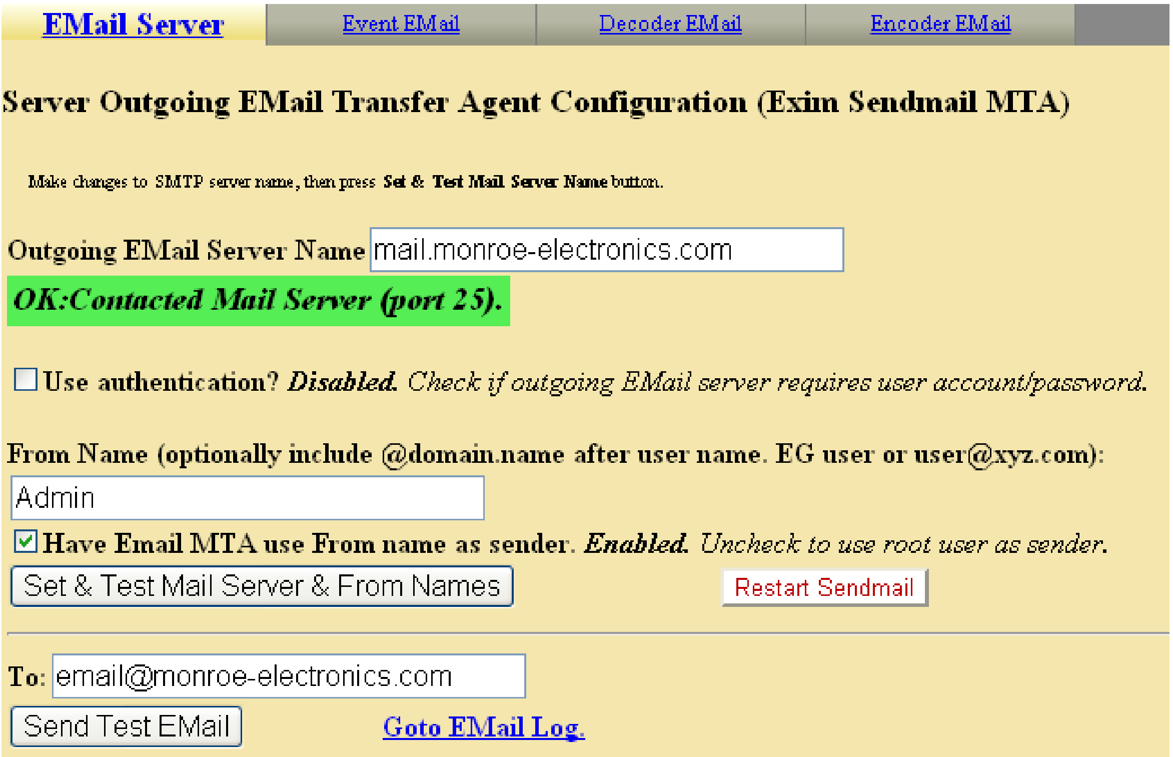
The One-Net^{SE} can be configured to optionally send email upon alert decoding, origination, and forwarding. Select the **Setup > Email** page to configure an outgoing email server and to configure the send options. There are four tabbed sections: Email Server, Event Email, Decoder Email, and Encoder Email.

4.5.1 Email Server

To set the outgoing email server name without using authentication **(port 25)**:

- Select **Setup Email >Email Server.** From this page you can set the name of the SMTP server for outgoing Emails from the One-Net^{SE}. Enter a name in the text field after **Outgoing Email Server** and click Set & Test Mail Server Name.
- The One-Net^{SE} will attempt to contact this Email server.
- If it succeeds, the message "***OK: Contacted Email Server***" will display under the name.

To test if Email can actually be sent via the chosen Email server, type a valid Email address in the **To:** text field and click Send Test Email. If this works, the chosen recipient should receive an Email.



Server Outgoing EMail Transfer Agent Configuration (Exim Sendmail MTA)

Make changes to SMTP server name, then press **Set & Test Mail Server Name** button.

Outgoing EMail Server Name: mail.monroe-electronics.com

OK:Contacted Mail Server (port 25).

☐ Use authentication? ***Disabled.*** *Check if outgoing EMail server requires user account/password.*

From Name (optionally include @domain.name after user name. EG user or user@xyz.com): Admin

☑ Have Email MTA use From name as sender. ***Enabled.*** *Uncheck to use root user as sender.*

To: email@monroe-electronics.com

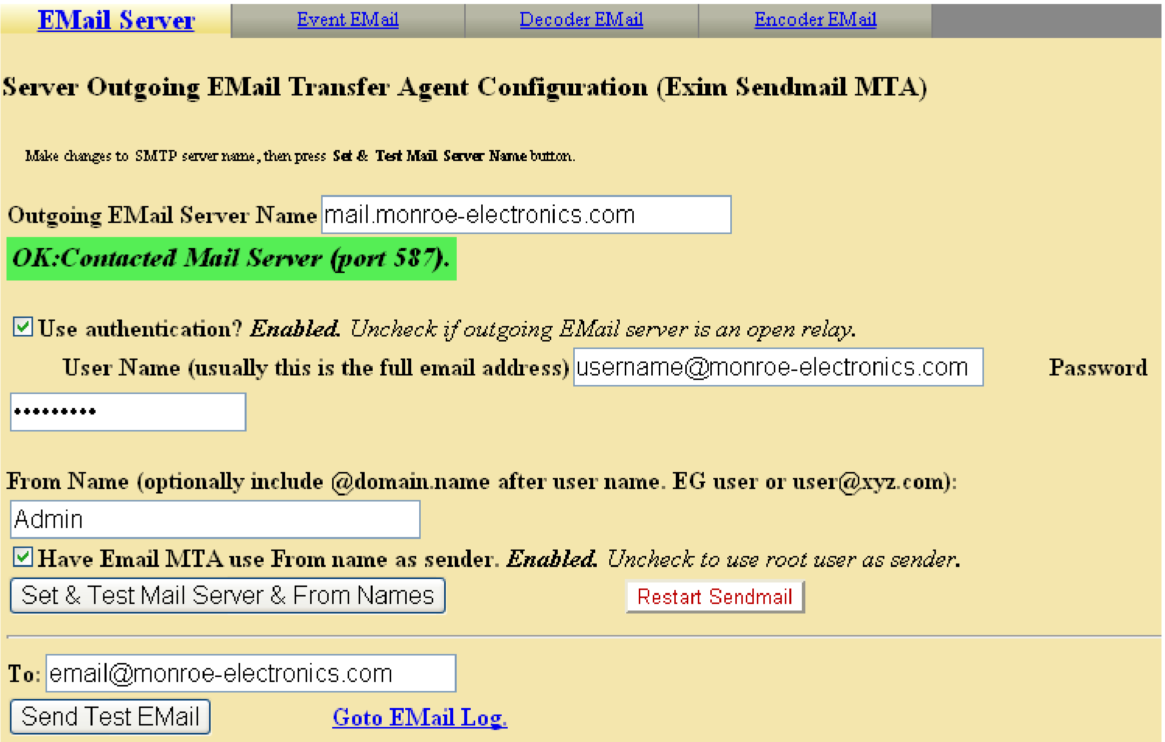
Setup > Email > Email Server: Not using authentication

To set the outgoing email server name using authentication **(port 587)**:

- Select **Setup Email >Email Server.** From this page you can set the name of the SMTP server for outgoing Emails from the One-Net^{SE}.
- Enable the **Use Authentication?** Option.
- Provide a username and password for authentication.

- Enter a name in the text field after **Outgoing Email Server** and click Set & Test Mail Server Name.
- The One-Net^{SE} will attempt to contact this Email server.
- If it succeeds, the message "***OK: Contacted Email Server***" will display under the name.

To test if Email can actually be sent via the chosen Email server, type a valid Email address in the **To:** text field and click Send Test Email. If this works, the chosen recipient should receive an Email.



Server Outgoing EMail Transfer Agent Configuration (Exim Sendmail MTA)

Make changes to SMTP server name, then press **Set & Test Mail Server Name** button.

Outgoing EMail Server Name: mail.monroe-electronics.com

OK:Contacted Mail Server (port 587).

☑ Use authentication? ***Enabled.*** *Uncheck if outgoing EMail server is an open relay.*

User Name (usually this is the full email address): username@monroe-electronics.com

Password: •••••••••

From Name (optionally include @domain.name after user name. EG user or user@xyz.com): Admin

☑ Have Email MTA use From name as sender. ***Enabled.*** *Uncheck to use root user as sender.*

To: email@monroe-electronics.com

Setup > Email > Email Server: Using authentication

4.5.2 Event Email

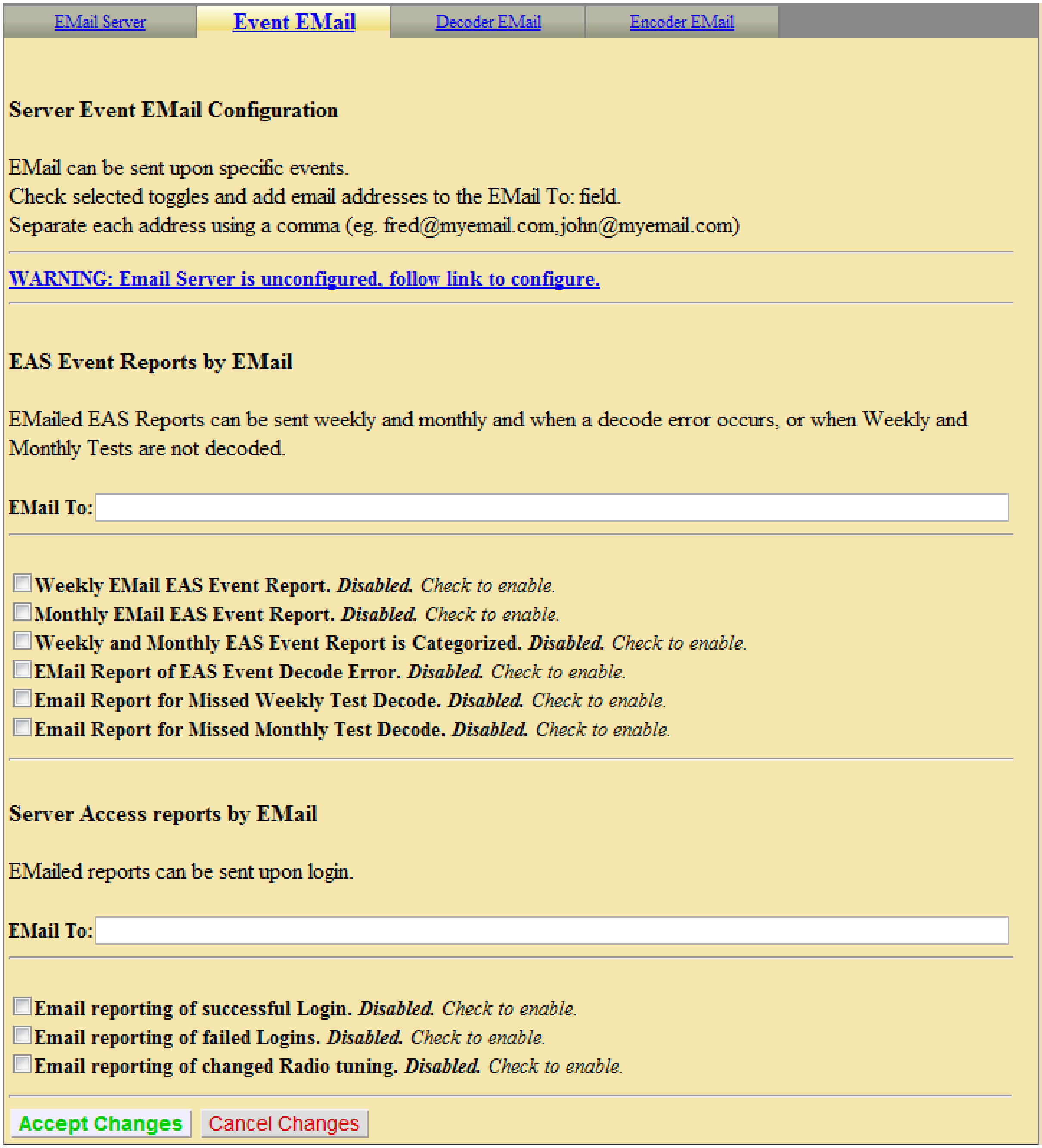
This page allows the user to the ability to have Event logs emailed either weekly or monthly, and to be emailed when a successfully or failed login to the One-Net^{SE} has occurred.

Emailing EAS Event Reports

Check either of the boxes to disable or enable Emailing of Event Reports either on a monthly or weekly basis. If enabled, enter the Email address in the **Email To:** field.

Server Access Reports

Check either of the boxes to disable or enable Emailing of Server Access Reports. If enabled, enter the Email address in the **Email To:** field.



Server Event EMail Configuration

EMail can be sent upon specific events.
Check selected toggles and add email addresses to the EMail To: field.
Separate each address using a comma (eg. fred@myemail.com,john@myemail.com)

WARNING: Email Server is unconfigured, follow link to configure.

EAS Event Reports by EMail

EMailed EAS Reports can be sent weekly and monthly and when a decode error occurs, or when Weekly and Monthly Tests are not decoded.

EMail To:

□ **Weekly EMail EAS Event Report.** ***Disabled.*** *Check to enable.*
□ **Monthly EMail EAS Event Report.** ***Disabled.*** *Check to enable.*
□ **Weekly and Monthly EAS Event Report is Categorized.** ***Disabled.*** *Check to enable.*
□ **EMail Report of EAS Event Decode Error.** ***Disabled.*** *Check to enable.*
□ **Email Report for Missed Weekly Test Decode.** ***Disabled.*** *Check to enable.*
□ **Email Report for Missed Monthly Test Decode.** ***Disabled.*** *Check to enable.*

Server Access reports by EMail

EMailed reports can be sent upon login.

EMail To:

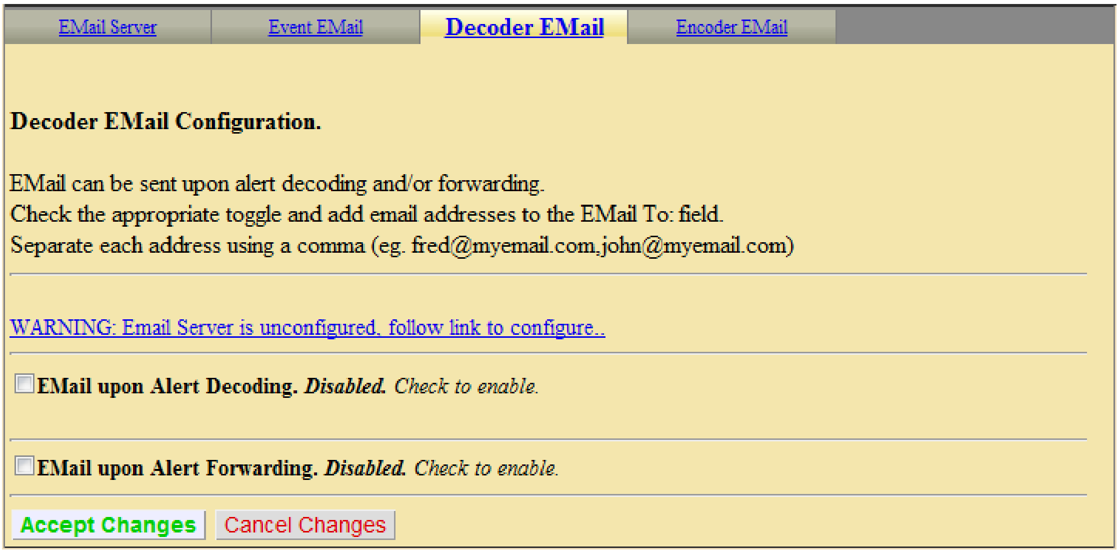
□ **Email reporting of successful Login.** ***Disabled.*** *Check to enable.*
□ **Email reporting of failed Logins.** ***Disabled.*** *Check to enable.*
□ **Email reporting of changed Radio tuning.** ***Disabled.*** *Check to enable.*

Setup > Email > Event Email

4.5.3 Decoder Email

To set up the outgoing email for the One-Net^{SE} decoder events, select **Setup Email > Decoder Email.** Email can be sent upon alert decoding and/or forwarding. The Email Server is identified. If changes to the outgoing email server are needed, return to the **Setup Email >Email Server** screen.

Check the appropriate toggle and add email addresses to the Email To: field. Check either:



Decoder EMail Configuration.

EMail can be sent upon alert decoding and/or forwarding.
Check the appropriate toggle and add email addresses to the EMail To: field.
Separate each address using a comma (eg. fred@myemail.com,john@myemail.com)

WARNING: Email Server is unconfigured. follow link to configure..

□ **EMail upon Alert Decoding.** ***Disabled.*** *Check to enable.*

□ **EMail upon Alert Forwarding.** ***Disabled.*** *Check to enable.*

Setup > Email > Decoder Email

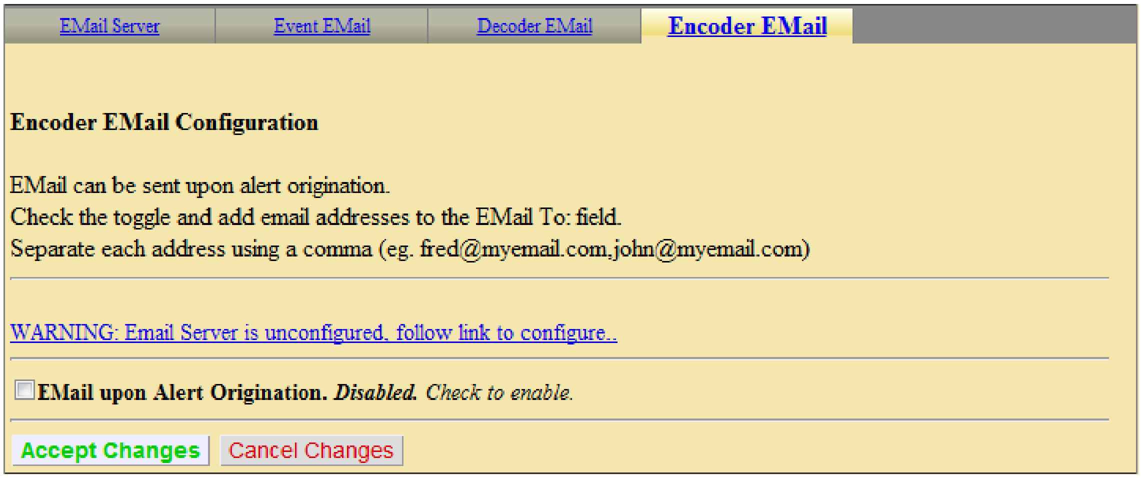
Email upon Alert Decoding: Check the box to disable or enable Email on Alert Decoding. If enabled, enter the Email address in the **Email To:** field.

Email upon Alert Forwarding: Check the box to disable or enable Email upon Alert Forwarding. If enabled, enter the Email address in the **Email To:** field.

Click Accept Changes.

4.5.4 Encoder Email

To setup the outgoing email for the One-Net^{SE} encoder events, select **Setup Email > Encoder Email**. Email can be sent upon alert origination. Follow screen instructions or the same method described above for Decoder Email. Click Accept Changes for any changes to be effective.



Encoder EMail Configuration

EMail can be sent upon alert origination.
Check the toggle and add email addresses to the EMail To: field.
Separate each address using a comma (eg. fred@myemail.com,john@myemail.com)

WARNING: Email Server is unconfigured. follow link to configure..

□ **EMail upon Alert Origination.** ***Disabled.*** *Check to enable.*

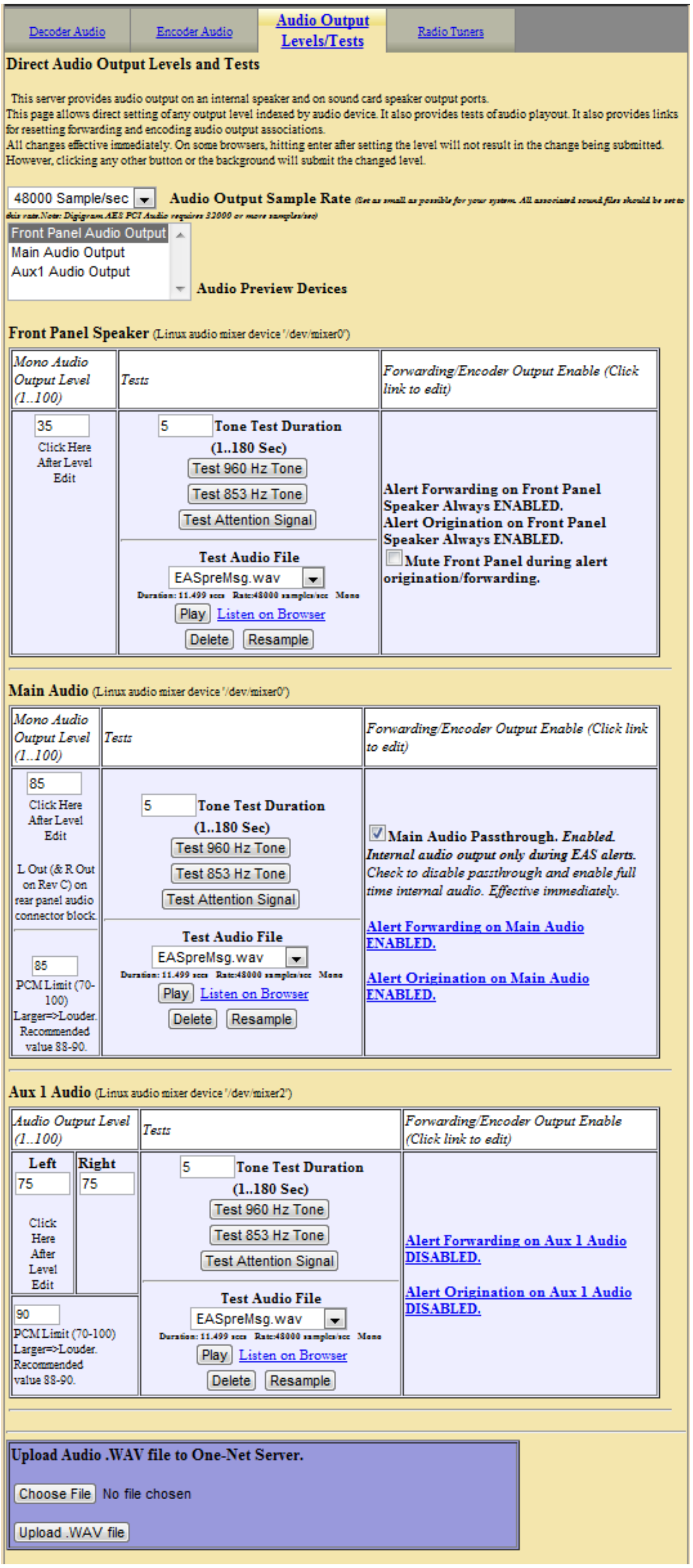
Setup > Email > Encoder Email

4.6 Setup > Audio: Audio Levels and Tone Testing

There are four audio screens to configure: Decoder Audio, Encoder Audio, Audio Output Levels/Tests, and Radio Tuners. Start with **Audio Output Levels/Tests**.

4.6.1 Output Levels/Tests

The audio output levels for the One-Net^{SE} are always configured from this page. Also, audio tones can be played through each available audio output in order to test the output and calibrate levels using audio test equipment. Every One-Net^{SE} will show the configuration interface for the Front Panel Speaker, Main Audio and for the Auxiliary Audio 1. Configure the levels by entering numbers from 0 to 100 for any specific port. Values near 70 are a good starting point for the One-Net^{SE}.



Direct Audio Output Levels and Tests

This server provides audio output on an internal speaker and on sound card speaker output ports.
This page allows direct setting of any output level indexed by audio device. It also provides tests of audio playout. It also provides links for resetting forwarding and encoding audio output associations.
All changes effective immediately. On some browsers, hitting enter after setting the level will not result in the change being submitted. However, clicking any other button or the background will submit the changed level.

48000 Sample/sec **Audio Output Sample Rate** *(Set as small as possible for your system. All associated sound files should be set to this rate.Note: Digigram AES PCI Audio requires 32000 or more samples/sec)*

Front Panel Audio Output
Main Audio Output
Aux1 Audio Output **Audio Preview Devices**

Front Panel Speaker (Linux audio mixer device '/dev/mixer0')

Mono Audio Output Level (1..100)	*Tests*	*Forwarding/Encoder Output Enable (Click link to edit)*
35 Click Here After Level Edit	5 **Tone Test Duration (1..180 Sec)** Test 960 Hz Tone Test 853 Hz Tone Test Attention Signal **Test Audio File** EASpreMsg.wav Duration: 11.499 secs Rate:48000 samples/sec Mono Play Listen on Browser Delete Resample	**Alert Forwarding on Front Panel Speaker Always ENABLED.** **Alert Origination on Front Panel Speaker Always ENABLED.** □ **Mute Front Panel during alert origination/forwarding.**

Main Audio (Linux audio mixer device '/dev/mixer0')

Mono Audio Output Level (1..100)	*Tests*	*Forwarding/Encoder Output Enable (Click link to edit)*
85 Click Here After Level Edit L Out (& R Out on Rev C) on rear panel audio connector block 85 PCM Limit (70-100) Larger=>Louder. Recommended value 88-90.	5 **Tone Test Duration (1..180 Sec)** Test 960 Hz Tone Test 853 Hz Tone Test Attention Signal **Test Audio File** EASpreMsg.wav Duration: 11.499 secs Rate:48000 samples/sec Mono Play Listen on Browser Delete Resample	☑ **Main Audio Passthrough.** *Enabled. Internal audio output only during EAS alerts. Check to disable passthrough and enable full time internal audio. Effective immediately.* **Alert Forwarding on Main Audio ENABLED.** **Alert Origination on Main Audio ENABLED.**

Aux 1 Audio (Linux audio mixer device '/dev/mixer2')

Audio Output Level (1..100)		*Tests*	*Forwarding/Encoder Output Enable (Click link to edit)*
Left	**Right**	5 **Tone Test Duration (1..180 Sec)** Test 960 Hz Tone Test 853 Hz Tone Test Attention Signal **Test Audio File** EASpreMsg.wav Duration: 11.499 secs Rate:48000 samples/sec Mono Play Listen on Browser Delete Resample	**Alert Forwarding on Aux 1 Audio DISABLED.** **Alert Origination on Aux 1 Audio DISABLED.**
75 Click Here After Level Edit	75		
90 PCM Limit (70-100) Larger=>Louder. Recommended value 88-90.			

Upload Audio .WAV file to One-Net Server.

Choose File No file chosen

Upload .WAV file

Setup > Audio > Audio Output Levels/Tests

NOTE: The interface pages for Decoder and Encoder Audio display and reference audio output levels for certain features. These references always provide an active hyperlink into this page to allow for changes to audio output levels.

To test the Main and/or Auxiliary Audio outputs, attach speakers to the One-Net^{SE} audio device output ports and run the various tone test buttons. The Front Panel Speaker can be tested as is. These tests allow the One-Net^{SE} to play each of the two single tones that comprise the dual-tone EAS Attention Signal. The EAS Attention signal and WAV files can also be played. The duration of the test is set per Audio device by the **Test Tone Duration** fields.

Audio tests, audio levels and duration changes occur immediately.

Alert Audio Toggles
The Main and Auxiliary Audio displays also display with an active hyperlink if alert audio from originated and forwarded alerts is enabled. Clicking these links will jump to the correct Decoder and Encoder Audio setup page for changes to be made.

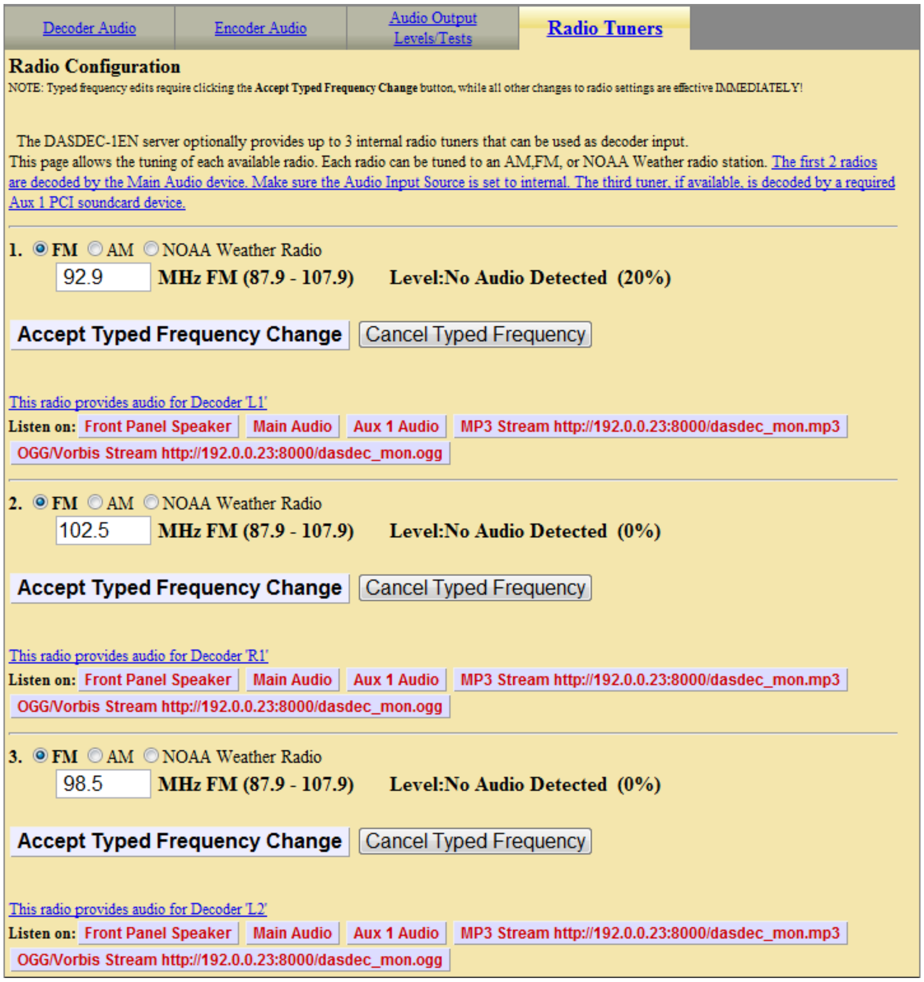
Upload Audio .WAV file to One-Net^{SE} Server
This interface allows Wav files to be uploaded into the One-Net^{SE}. Uploaded audio files are available for tests as well as for encoding and manual forwarding.

4.6.2 Radio Tuners

The One-Net^{SE} can be equipped with up to three internal radio tuners. Each tuner can be configured by the user, through the browser page, to receive AM, FM or NOAA stations.

Setting the Radio Types and Frequencies:
Use this screen to program the installed radios. For each radio select the radio type by clicking on the button to the left of each type. Next, click on the frequency box and type in the desired frequency for an approved radio station and click on the Accept Typed Frequency Change button to accept the change. This frequency **MUST** correspond to an approved LP1 or LP2 for your area. You can obtain a list of approved stations from the EAS Chairman of your state. Repeat this process for all of the installed radios.

After setting all of the radios, verify that level is OK. This is displayed to the right of the frequency box. To listen to the radio signal, you can select where to route the signal to clicking on the appropriate button. In most cases the audio is routed to the front panel speaker. Make sure to turn off the feature when done testing.



Radio Configuration

NOTE: Typed frequency edits require clicking the **Accept Typed Frequency Change** button, while all other changes to radio settings are effective IMMEDIATELY!

The DASDEC-1EN server optionally provides up to 3 internal radio tuners that can be used as decoder input.
This page allows the tuning of each available radio. Each radio can be tuned to an AM,FM, or NOAA Weather radio station. The first 2 radios are decoded by the Main Audio device. Make sure the Audio Input Source is set to internal. The third tuner, if available, is decoded by a required Aux 1 PCI soundcard device.

1. ● **FM** ○ AM ○ NOAA Weather Radio
92.9 **MHz FM (87.9 - 107.9)** **Level:No Audio Detected (20%)**

This radio provides audio for Decoder 'L1'
Listen on: Front Panel Speaker | Main Audio | Aux 1 Audio | MP3 Stream http://192.0.0.23:8000/dasdec_mon.mp3 | OGG/Vorbis Stream http://192.0.0.23:8000/dasdec_mon.ogg

2. ● **FM** ○ AM ○ NOAA Weather Radio
102.5 **MHz FM (87.9 - 107.9)** **Level:No Audio Detected (0%)**

This radio provides audio for Decoder 'R1'
Listen on: Front Panel Speaker | Main Audio | Aux 1 Audio | MP3 Stream http://192.0.0.23:8000/dasdec_mon.mp3 | OGG/Vorbis Stream http://192.0.0.23:8000/dasdec_mon.ogg

3. ● **FM** ○ AM ○ NOAA Weather Radio
98.5 **MHz FM (87.9 - 107.9)** **Level:No Audio Detected (0%)**

This radio provides audio for Decoder 'L2'
Listen on: Front Panel Speaker | Main Audio | Aux 1 Audio | MP3 Stream http://192.0.0.23:8000/dasdec_mon.mp3 | OGG/Vorbis Stream http://192.0.0.23:8000/dasdec_mon.ogg

Setup > Audio > Radio Tuner

4.6.3 Decoder Audio

There are three features provided to configure decoder audio: Alert Decoding, Decoder Audio Monitoring, and Alert Forwarding.

Each One-Net^{SE} EAS decoder channel can be independently tuned for input sensitivity, and also can be enabled and disabled with the provided interfaces. The audio devices used during alert forwarding are also configured from this screen.

Alert Decoding Audio Configuration
Alert decoding occurs from active analysis of the audio input source on the Main and Auxiliary audio devices. Each stereo input to an audio device allows for two EAS decoder channels. Therefore the One-Net^{SE} provides four decoders. Under the **Alert Decoding Audio Configuration** section, each audio device available for the One-Net^{SE} is shown with a table that displays:

Decoder Name *Audio Input Level (1..100)* *Audio Level Status* *Decoder Enable*

Under each of these columns is displayed information/controls per decoder. The Decoder labels, shown for the Main Audio as LP1 and LP2, can be changed by the user if desired. The interface allows the audio input level and the decoder enable/disable to be changed per decoder. Changes become effective immediately. The Audio Level Status is a very useful tool to test for correct audio input levels. It will display if an audio signal is too low or high or OK. It can also detect if an audio input is silent. The level status is updated each time this page is redisplayed or when audio changes are submitted. Set audio input levels until the Green OK level is achieved.

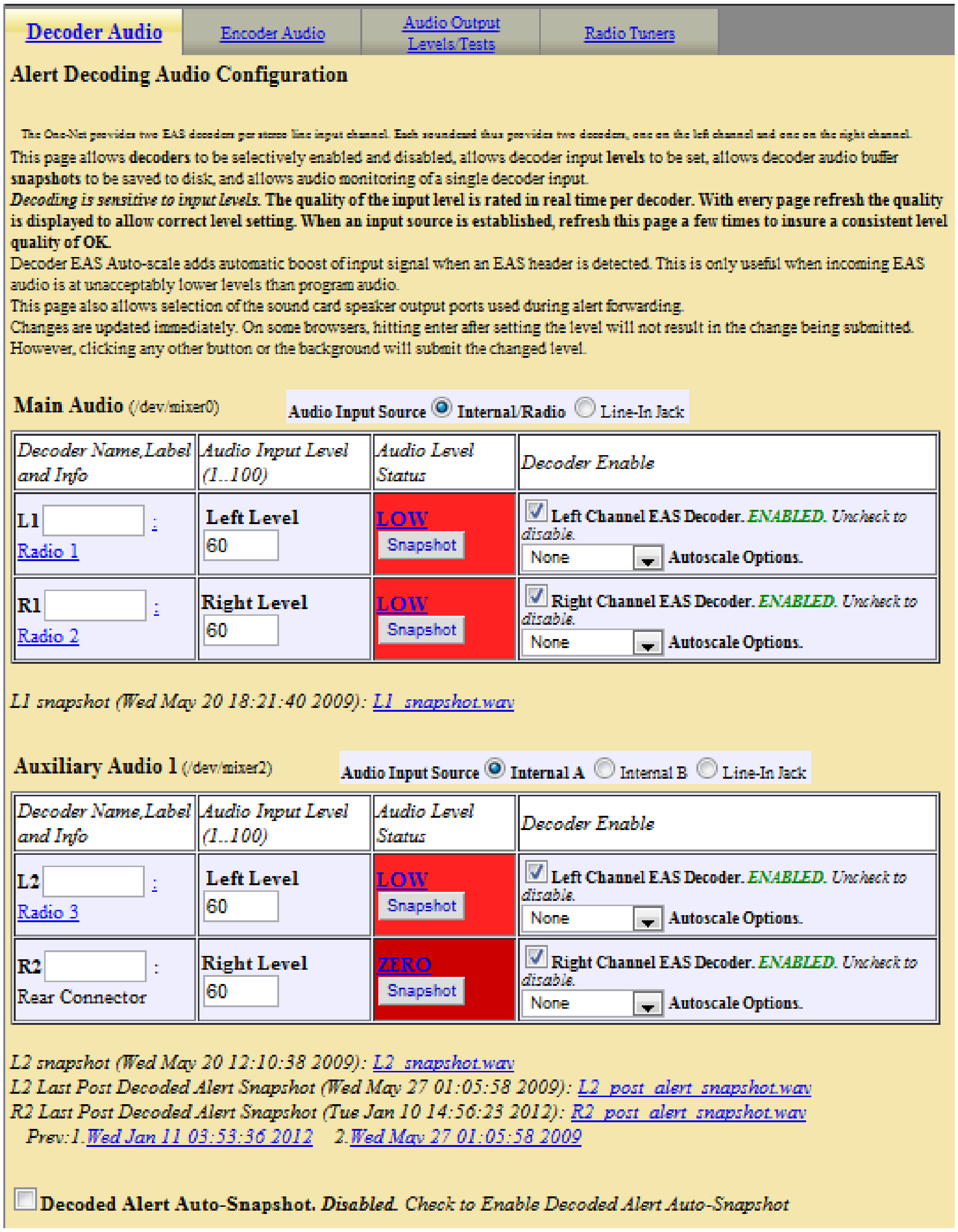
Snapshot

Clicking on any of the four “Snapshot” buttons will create an audio .wav file for that specific decoder. This file contains the last three minutes of audio detected by the decoder. You can click on the link below the decoder to play the file. Snapshot is mainly used for troubleshooting purposes.

Placing a check mark in the “Decoded Alert Auto-Snapshot” box will create a .wav file every time an alert is decoded. This feature is also used mainly for troubleshooting purposes.

EAS Auto-scale

Placing a check mark in the “EAS Auto-scale” box will allow the One-Net^{SE} to automatically adjust the audio level to a decoder if the level is too high or too low. This feature is used if signal levels from a source are not stable.



Alert Decoding Audio Configuration

The One-Net provides two EAS decoders per stereo line input channel. Each soundcard thus provides two decoders, one on the left channel and one on the right channel.

This page allows decoders to be selectively enabled and disabled, allows decoder input levels to be set, allows decoder audio buffer snapshots to be saved to disk, and allows audio monitoring of a single decoder input.
Decoding is sensitive to input levels. **The quality of the input level is rated in real time per decoder. With every page refresh the quality is displayed to allow correct level setting. When an input source is established, refresh this page a few times to insure a consistent level quality of OK.**
Decoder EAS Auto-scale adds automatic boost of input signal when an EAS header is detected. This is only useful when incoming EAS audio is at unacceptably lower levels than program audio.
This page also allows selection of the sound card speaker output ports used during alert forwarding.
Changes are updated immediately. On some browsers, hitting enter after setting the level will not result in the change being submitted. However, clicking any other button or the background will submit the changed level.

Main Audio (/dev/mixer0) Audio Input Source ● Internal/Radio ○ Line-In Jack

Decoder Name,Label and Info	*Audio Input Level (1..100)*	*Audio Level Status*	*Decoder Enable*
L1 : Radio 1	**Left Level** 60	LOW Snapshot	☑ **Left Channel EAS Decoder.** *ENABLED. Uncheck to disable.* None **Autoscale Options.**
R1 : Radio 2	**Right Level** 60	LOW Snapshot	☑ **Right Channel EAS Decoder.** *ENABLED. Uncheck to disable.* None **Autoscale Options.**

L1 snapshot (Wed May 20 18:21:40 2009): L1_snapshot.wav

Auxiliary Audio 1 (/dev/mixer2) Audio Input Source ● Internal A ○ Internal B ○ Line-In Jack

Decoder Name,Label and Info	*Audio Input Level (1..100)*	*Audio Level Status*	*Decoder Enable*
L2 : Radio 3	**Left Level** 60	LOW Snapshot	☑ **Left Channel EAS Decoder.** *ENABLED. Uncheck to disable.* None **Autoscale Options.**
R2 : Rear Connector	**Right Level** 60	ZERO Snapshot	☑ **Right Channel EAS Decoder.** *ENABLED. Uncheck to disable.* None **Autoscale Options.**

L2 snapshot (Wed May 20 12:10:38 2009): L2_snapshot.wav
L2 Last Post Decoded Alert Snapshot (Wed May 27 01:05:58 2009): L2_post_alert_snapshot.wav
R2 Last Post Decoded Alert Snapshot (Tue Jan 10 14:56:23 2012): R2_post_alert_snapshot.wav
Prev:1.Wed Jan 11 03:53:36 2012 2.Wed May 27 01:05:58 2009

☐ **Decoded Alert Auto-Snapshot.** ***Disabled.*** *Check to Enable Decoded Alert Auto-Snapshot*

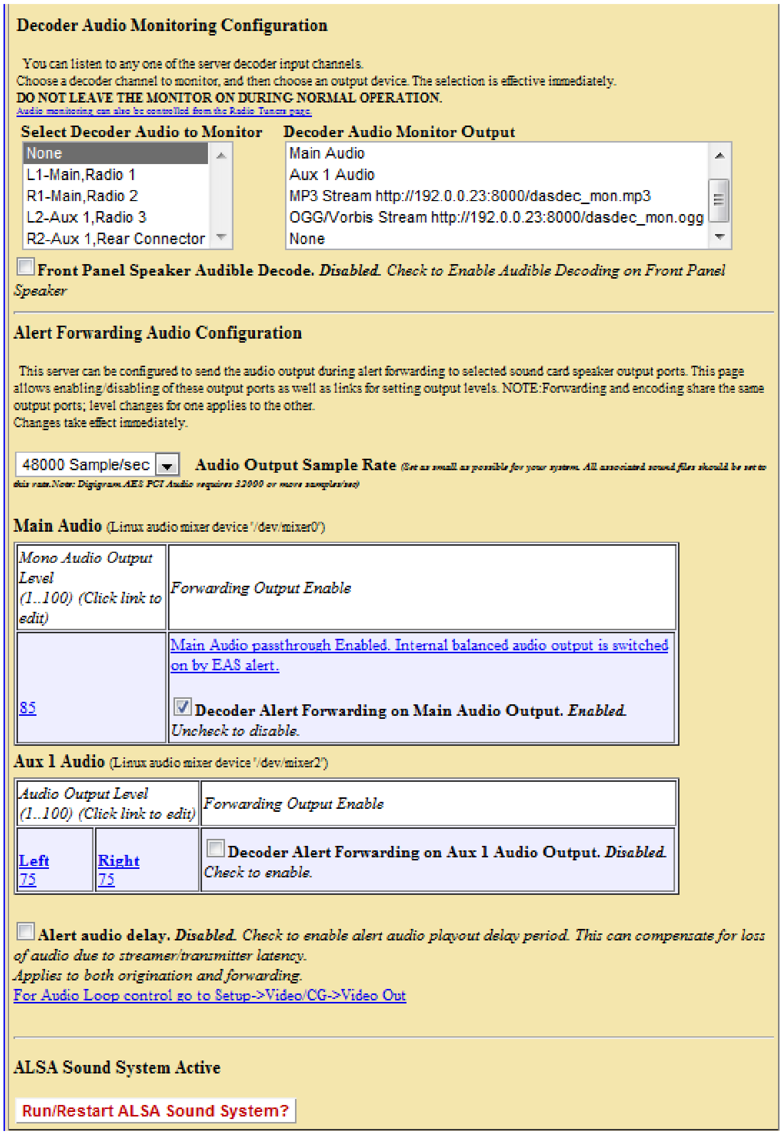
Setup > Audio > Decoder Audio

Decoder Audio Monitoring Configuration

These two interfaces allow a One-Net^{SE} user to hear the audio from a selected decoder input. The **Select Decoder Audio to Monitor** list presents all of the decoder audio channels available to hear. The **Decoder Audio Monitor Output** list allows a specific output port to be selected to hear the audio chosen in **Select Decoder Audio to Monitor**. Choose a decoder channel and select an output port that has speakers (or the Internal Speaker) and click Accept Changes. To disable audio monitoring, select the None decoder and/or the None Audio output and again click Accept Changes.

Alert Forwarding Audio Configuration

After the One-Net^{SE} decodes an EAS alert, it can be configured to “Forward” the alert. That is, it can play the alert as audio over a selected audio output. This interface allows for enabling Forwarding audio on each of the audio output devices. Enabling/disabling is achieved using the provided checkbox toggles. The text next to the toggles clearly indicates the current state and the result of toggling. The audio output levels are also displayed and provide an active hyperlink to the **Audio Output Levels/Tests** page to change the output levels. Changes do not take place until Accept Changes is clicked.



Decoder Audio Monitoring Configuration

You can listen to any one of the server decoder input channels.
Choose a decoder channel to monitor, and then choose an output device. The selection is effective immediately.
DO NOT LEAVE THE MONITOR ON DURING NORMAL OPERATION.
Audio monitoring can also be controlled from the Radio Tuners page.

Select Decoder Audio to Monitor

- None
- L1-Main,Radio 1
- R1-Main,Radio 2
- L2-Aux 1,Radio 3
- R2-Aux 1,Rear Connector

Decoder Audio Monitor Output

- Main Audio
- Aux 1 Audio
- MP3 Stream http://192.0.0.23:8000/dasdec_mon.mp3
- OGG/Vorbis Stream http://192.0.0.23:8000/dasdec_mon.ogg
- None

☐ **Front Panel Speaker Audible Decode.** *Disabled. Check to Enable Audible Decoding on Front Panel Speaker*

Alert Forwarding Audio Configuration

This server can be configured to send the audio output during alert forwarding to selected sound card speaker output ports. This page allows enabling/disabling of these output ports as well as links for setting output levels. NOTE:Forwarding and encoding share the same output ports; level changes for one applies to the other.
Changes take effect immediately.

48000 Sample/sec **Audio Output Sample Rate** *(Set as small as possible for your system. All associated sound files should be set to this rate.Note: Digigram AES PCI Audio requires 32000 or more samples/sec)*

Main Audio (Linux audio mixer device '/dev/mixer0')

Mono Audio Output Level (1..100) (Click link to edit)	*Forwarding Output Enable*
85	Main Audio passthrough Enabled. Internal balanced audio output is switched on by EAS alert. ☑ **Decoder Alert Forwarding on Main Audio Output.** *Enabled. Uncheck to disable.*

Aux 1 Audio (Linux audio mixer device '/dev/mixer2')

Audio Output Level (1..100) (Click link to edit)		*Forwarding Output Enable*
Left 75	**Right** 75	☐ **Decoder Alert Forwarding on Aux 1 Audio Output.** *Disabled. Check to enable.*

☐ **Alert audio delay.** *Disabled. Check to enable alert audio playout delay period. This can compensate for loss of audio due to streamer/transmitter latency.*
Applies to both origination and forwarding.
For Audio Loop control go to Setup->Video/CG->Video Out

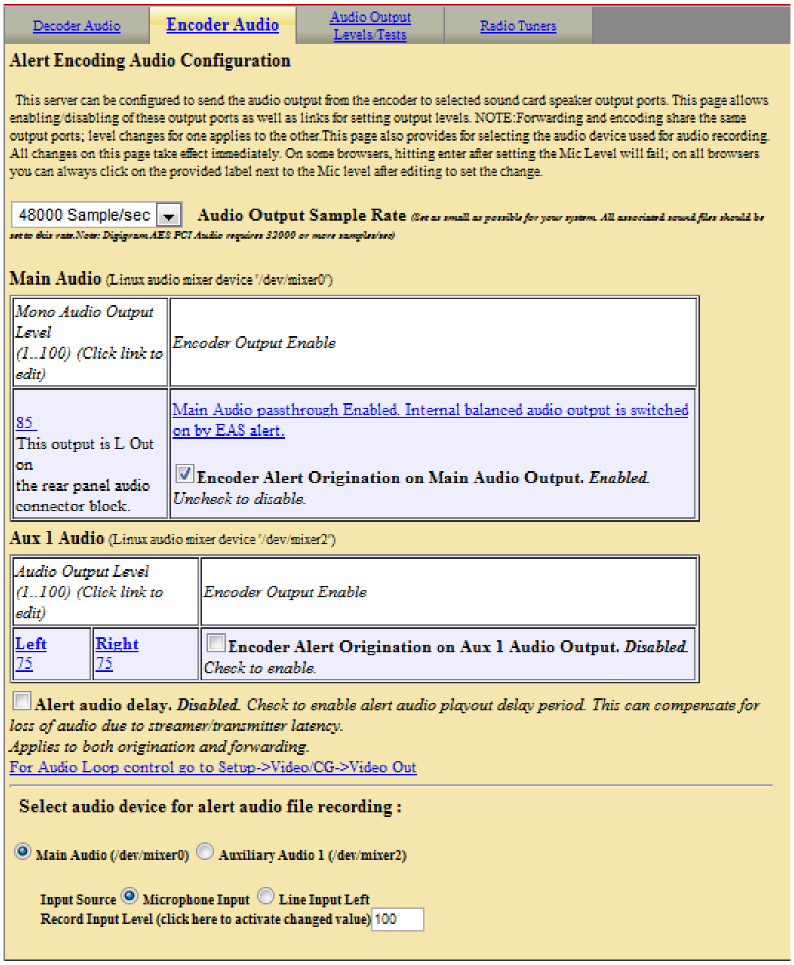
ALSA Sound System Active

Run/Restart ALSA Sound System?

Setup > Audio > Decoder Audio: Decoder Audio Monitoring Configuration

4.6.4 Encoder Audio

There are two main configuration options for encoder audio: Alert Encoding and Microphone selection.



Alert Encoding Audio Configuration

This server can be configured to send the audio output from the encoder to selected sound card speaker output ports. This page allows enabling/disabling of these output ports as well as links for setting output levels. NOTE:Forwarding and encoding share the same output ports; level changes for one applies to the other.This page also provides for selecting the audio device used for audio recording. All changes on this page take effect immediately. On some browsers, hitting enter after setting the Mic Level will fail; on all browsers you can always click on the provided label next to the Mic level after editing to set the change.

48000 Sample/sec **Audio Output Sample Rate** *(Set as small as possible for your system. All associated sound files should be set to this rate.Note: Digigram AES PCI Audio requires 32000 or more samples/sec)*

Main Audio (Linux audio mixer device '/dev/mixer0')

Mono Audio Output Level (1..100) (Click link to edit)	*Encoder Output Enable*
85 This output is L Out on the rear panel audio connector block.	Main Audio passthrough Enabled. Internal balanced audio output is switched on by EAS alert. ☑ **Encoder Alert Origination on Main Audio Output.** *Enabled. Uncheck to disable.*

Aux 1 Audio (Linux audio mixer device '/dev/mixer2')

Audio Output Level (1..100) (Click link to edit)		*Encoder Output Enable*
Left 75	**Right** 75	☐ **Encoder Alert Origination on Aux 1 Audio Output.** *Disabled. Check to enable.*

☐ **Alert audio delay.** *Disabled. Check to enable alert audio playout delay period. This can compensate for loss of audio due to streamer/transmitter latency.*
Applies to both origination and forwarding.
For Audio Loop control go to Setup->Video/CG->Video Out

Select audio device for alert audio file recording :

● Main Audio (/dev/mixer0) ○ Auxiliary Audio 1 (/dev/mixer2)

Input Source ● Microphone Input ○ Line Input Left
Record Input Level (click here to activate changed value) 100

Alert Encoding Audio Configuration

When the One-Net^{SE} encoder is used to originate an EAS alert, the audio associated with the alert must be played out of an output port in order for the alert to be transmitted or decoded by another decoder. **The audio for the alert must be configured to play over a selected audio output. This interface allows for enabling/disabling Originating audio on each of the audio output devices. Enabling/disabling is achieved using the provided checkbox toggles.** The text next to the toggles clearly indicates the current state and the result of toggling. The audio output levels are also displayed and provide an active hyperlink to the **Audio Output Levels/Tests** page to change the output levels. Changes are effective immediately.

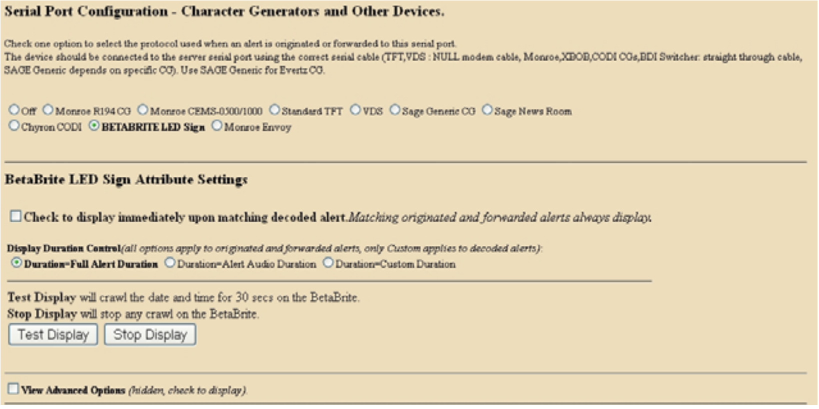
Select audio device for alert audio encoding microphone:

The One-Net^{SE} encoder provides an interface to record audio into WAV files. These can then be used for the audio portion of an alert. This page provides for selecting which audio device is used for the microphone input source. The Main audio device or any Auxiliary Audio device with a microphone input can be selected for use during alert audio recording. Use the provided radio button to select the microphone. Use the **Mic Input Level** control to set the level for the microphone. Changes do not take place until Accept Changes is clicked.

4.7 Setup > Video/CG: Video/Character Generator Configuration.

4.7.1 Serial Port Configuration

Serial Port Character Generator
Use this screen to configure the serial controlled CG.



Serial Port Configuration - Character Generators and Other Devices.

Check one option to select the protocol used when an alert is originated or forwarded to this serial port.
The device should be connected to the server serial port using the correct serial cable (TFT,VDS : NULL modem cable, Monroe,XBOB,CODI CGs,BDI Switcher: straight through cable, SAGE Generic depends on specific CG). Use SAGE Generic for Evertz CG.

○ Off ○ Monroe R194 CG ○ Monroe CEMS-0500/1000 ○ Standard TFT ○ VDS ○ Sage Generic CG ○ Sage News Room
○ Chyron CODI ● **BETABRITE LED Sign** ○ Monroe Envoy

BetaBrite LED Sign Attribute Settings

□ **Check to display immediately upon matching decoded alert.** *Matching originated and forwarded alerts always display.*

Display Duration Control *(all options apply to originated and forwarded alerts, only Custom applies to decoded alerts):*
● **Duration=Full Alert Duration** ○ Duration=Alert Audio Duration ○ Duration=Custom Duration

Test Display will crawl the date and time for 30 secs on the BetaBrite.
Stop Display will stop any crawl on the BetaBrite.

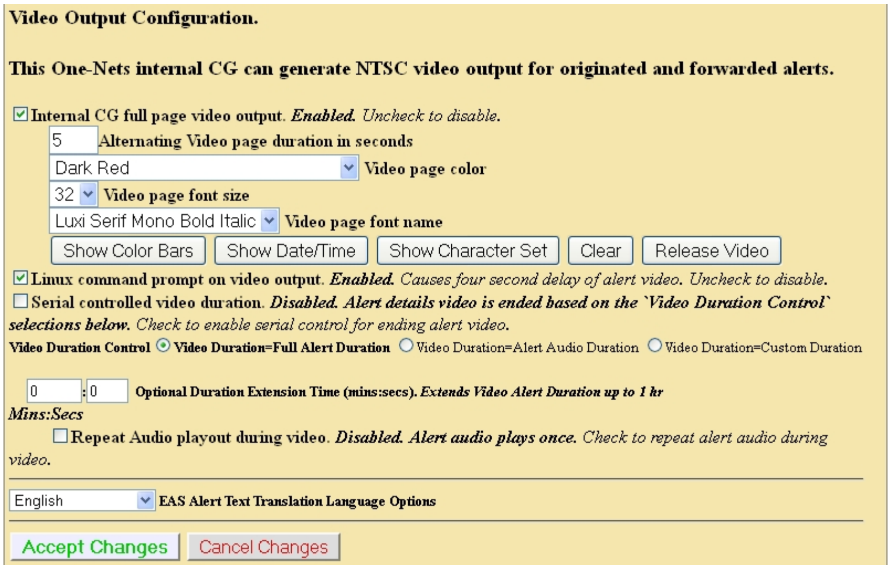
□ **View Advanced Options** *(hidden, check to display).*

Setup > Video/CG > Setup Main Serial CG & Video Out Options: Betabrite example

Select the CG to be used. There are 9 supported character generator protocols. Choose the appropriate one for the connected serial device. Many of the character generator protocols also present further configuration options. These are easy to understand from the presentations. The CODI protocol also presents options for generating test patterns.

4.7.2 Video Output Configuration

The One-Net^{SE} can be set to run a variety of character generators over its external serial port. The One-Net^{SE} can also provide native analog NTSC composite video output.



Video Output Configuration.

This One-Nets internal CG can generate NTSC video output for originated and forwarded alerts.

☑ Internal CG full page video output. ***Enabled.*** *Uncheck to disable.*
5 Alternating Video page duration in seconds
Dark Red Video page color
32 Video page font size
Luxi Serif Mono Bold Italic Video page font name

☑ Linux command prompt on video output. ***Enabled.*** *Causes four second delay of alert video. Uncheck to disable.*
□ Serial controlled video duration. ***Disabled. Alert details video is ended based on the `Video Duration Control` selections below.*** *Check to enable serial control for ending alert video.*
Video Duration Control ● **Video Duration=Full Alert Duration** ○ Video Duration=Alert Audio Duration ○ Video Duration=Custom Duration

0 : 0 **Optional Duration Extension Time (mins:secs).** ***Extends Video Alert Duration up to 1 hr***
Mins:Secs
□ Repeat Audio playout during video. ***Disabled. Alert audio plays once.*** *Check to repeat alert audio during video.*

English **EAS Alert Text Translation Language Options**

Setup > Video/CG > Setup Main Serial CG & Video Out Options: Video Output Config.

Internal CG full page video output
Check the box to disable or enable details video output. If enabled, you can also choose from **Full Alert Duration**, **Alert Audio Duration**, or **Custom Alert Video Duration** to

set the exact video duration in minutes and seconds. A set of details pages will be played out of the RCA video output port on the back of the One-Net^{SE}.

Alternating Video page durations in seconds
This value determines how long each video page is displayed if the EAS message is more than one page long.

Video Page color, Font size, and Font name
Allows you to customize the page color, font, and font size of the NTSC video settings to your liking.

Serial controlled video duration
Check this box to display the Internal CG video message as long as serial controlled CG is active.

Optional Duration Extension Time
Entering a time in a mins:secs format will extend the time that the details video message is displayed. The maximum setting is 1 hr.
EAS Translation Language Options
There are three translation options. They are English, English and Spanish, and Spanish.

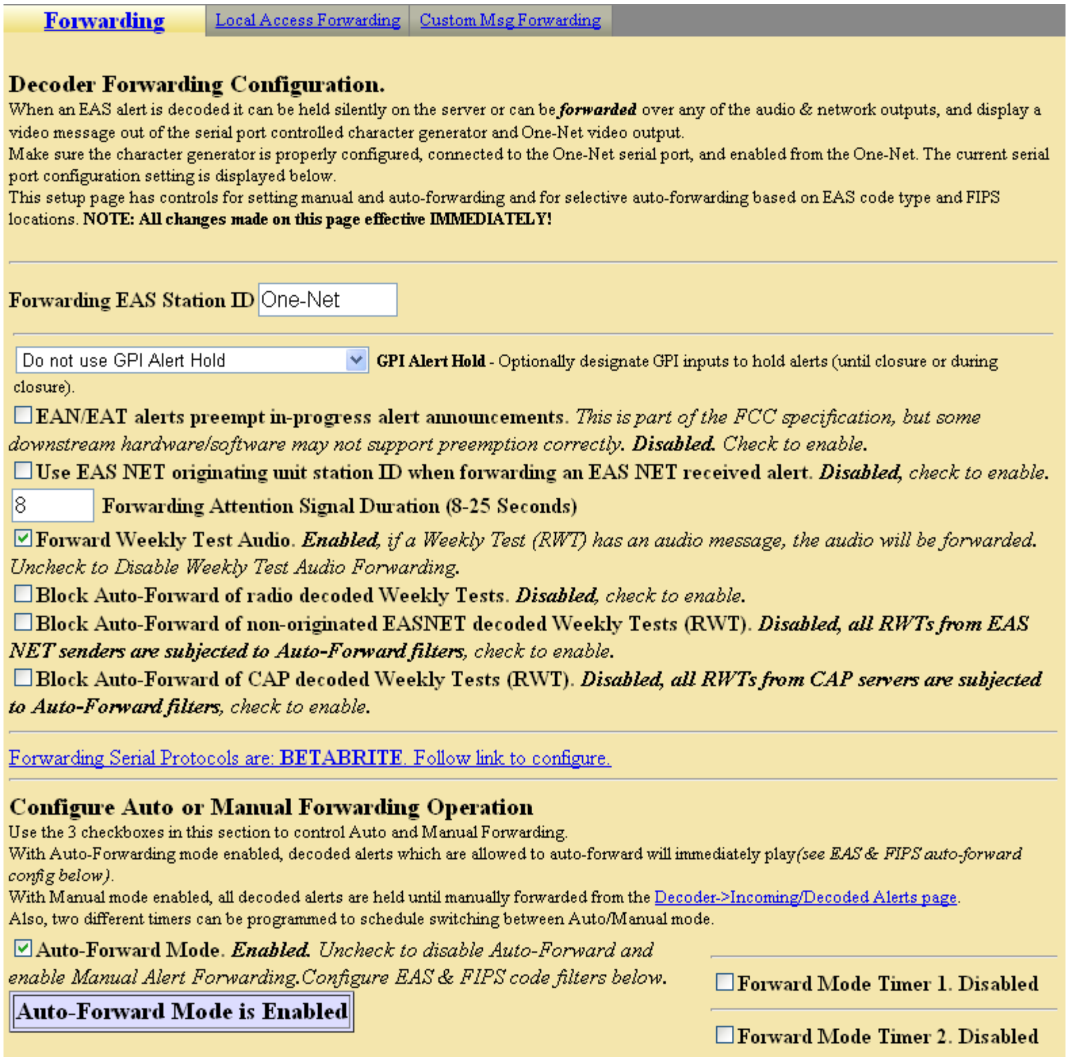
Click Accept Changes to make changes apply.

4.8 Setup > Decoder

By default, a One-Net^{SE} will run two EAS decoder channels from the Main audio device. It will decode EAS out of the box. However, a variety of useful options can be configured to tune the decoder for operation in a specific system within a specific geographic region. All decoder configuration options can be accessed through the **Setup** > **Decoder** page.

4.8.1 Setup Decoder > Forwarding

The Decoder Forwarding page is used to configure EAS alert forwarding. Forwarding is when a decoded EAS is relayed out an audio output of the One-Net^{SE}, presumably into a broadcast audio signal, and display a video message out of the serial port controlled character generator and One-Net^{SE} video output. Forwarding can be automatic or manual. Forwarding can be set so that all alerts to any FIPS area are forwarded, or it can be highly constrained so that only a select few EAS codes to specific FIPS areas are forwarded. Use this screen to configure station identity settings and to select EAS alerts that are forwarded. To select the actual audio output port(s) for forwarded alerts, a different Web Interface page is used see **Setup Audio > Decoder Audio**. Forwarded alerts are logged on the **Decoder > Forwarded Alerts** display page.



Decoder Forwarding Configuration.

When an EAS alert is decoded it can be held silently on the server or can be ***forwarded*** over any of the audio & network outputs, and display a video message out of the serial port controlled character generator and One-Net video output.
Make sure the character generator is properly configured, connected to the One-Net serial port, and enabled from the One-Net. The current serial port configuration setting is displayed below.
This setup page has controls for setting manual and auto-forwarding and for selective auto-forwarding based on EAS code type and FIPS locations. **NOTE: All changes made on this page effective IMMEDIATELY!**

Forwarding EAS Station ID One-Net

Do not use GPI Alert Hold **GPI Alert Hold** - Optionally designate GPI inputs to hold alerts (until closure or during closure).

□**EAN/EAT alerts preempt in-progress alert announcements**. *This is part of the FCC specification, but some downstream hardware/software may not support preemption correctly. **Disabled**. Check to enable.*

□**Use EAS NET originating unit station ID when forwarding an EAS NET received alert**. ***Disabled**, check to enable.*

8 **Forwarding Attention Signal Duration (8-25 Seconds)**

☑**Forward Weekly Test Audio**. ***Enabled**, if a Weekly Test (RWT) has an audio message, the audio will be forwarded. Uncheck to Disable Weekly Test Audio Forwarding.*

□**Block Auto-Forward of radio decoded Weekly Tests**. ***Disabled**, check to enable.*

□**Block Auto-Forward of non-originated EASNET decoded Weekly Tests (RWT)**. ***Disabled, all RWTs from EAS NET senders are subjected to Auto-Forward filters**, check to enable.*

□**Block Auto-Forward of CAP decoded Weekly Tests (RWT)**. ***Disabled, all RWTs from CAP servers are subjected to Auto-Forward filters**, check to enable.*

Forwarding Serial Protocols are: **BETABRITE**. Follow link to configure.

Configure Auto or Manual Forwarding Operation

Use the 3 checkboxes in this section to control Auto and Manual Forwarding.
With Auto-Forwarding mode enabled, decoded alerts which are allowed to auto-forward will immediately play *(see EAS & FIPS auto-forward config below)*.
With Manual mode enabled, all decoded alerts are held until manually forwarded from the Decoder->Incoming/Decoded Alerts page.
Also, two different timers can be programmed to schedule switching between Auto/Manual mode.

☑**Auto-Forward Mode**. ***Enabled**. Uncheck to disable Auto-Forward and enable Manual Alert Forwarding.Configure EAS & FIPS code filters below.*

Auto-Forward Mode is Enabled

□**Forward Mode Timer 1. Disabled**

□**Forward Mode Timer 2. Disabled**

Setup > Decoder > Forwarding

Forwarding EAS Station ID

Type up to 8 characters in this text field to identify the Station ID for this One-Net^{SE}. This code will be included in all forwarded alerts; both manually forwarded and automatically forwarded alerts.

NOTE: Forwarding Station ID is different from Encoder Station ID.

Forwarding Attention Signal Duration

Set the duration in seconds (from 8 to 25) of the attention signal tone played during alert forwarding.

Forward audio message in decoded Weekly Tests

Click the box to select or de-select the Forwarding of the Weekly Test audio. When set to forward, if audio is sent along with the Weekly Test it will play out along with the text portion of the message.

Block Auto-Forward of radio Decoded Weekly Tests

This feature is only used in conjunction with the EAS-NET communications between One-Nets. Click the box to select or de-select Blocking of Weekly tests received from the radio receivers of an EAS-NET decode device. The Weekly tests that are received via EAS-NET will forward.

Auto-Forward or Manual Mode

Click the box to select or de-select Alert Auto-Forwarding or Manual Alert Forwarding. When Manual forwarding is set, a user of the One-Net^{SE} must use the Web Interface to actively forward the alert from the Decoder Active Decoded list display. During Auto-Forward mode, the One-Net^{SE} will forward alerts without review or intervention.

> NOTE: Emergency Action Notification (EAN) and Termination (EAT) alerts always forward automatically.

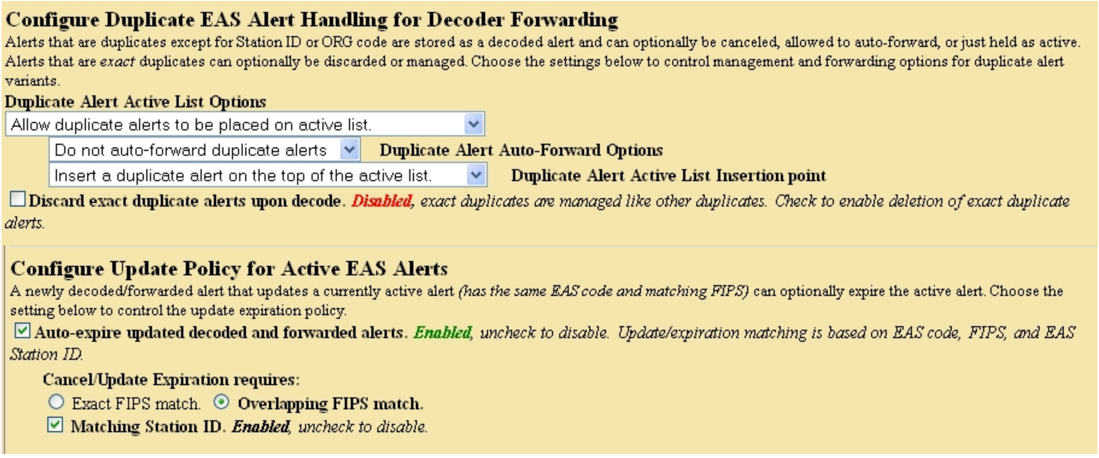
Duplicate Alert Handling for Decoder Auto-Forwarding

If an incoming EAS alert is determined to be an *exact* duplicate of a previously decoded alert, it is completely discarded and a message is logged in the operation log. Alerts that are duplicates except for Station ID or ORG code are stored as a decoded alert and can be optionally auto-forwarded or held.

The three selections allow the user to either forward or discard the duplicate alert. An example of this would be receiving a Required Monthly Test from both LP1 and LP2, displaying the first alert and discarding the second one.

Configure Update Policy for Active EAS Alerts

This option allows you to expire an active alert when a new alert is decoded and updates the previous alert. When enabled, you can choose what requirements the new alert must have to expire the previous active alert.



Configure Duplicate EAS Alert Handling for Decoder Forwarding

Alerts that are duplicates except for Station ID or ORG code are stored as a decoded alert and can optionally be canceled, allowed to auto-forward, or just held as active. Alerts that are *exact* duplicates can optionally be discarded or managed. Choose the settings below to control management and forwarding options for duplicate alert variants.

Duplicate Alert Active List Options

Allow duplicate alerts to be placed on active list.

Do not auto-forward duplicate alerts **Duplicate Alert Auto-Forward Options**

Insert a duplicate alert on the top of the active list. **Duplicate Alert Active List Insertion point**

□ **Discard exact duplicate alerts upon decode.** ***Disabled***, *exact duplicates are managed like other duplicates. Check to enable deletion of exact duplicate alerts.*

Configure Update Policy for Active EAS Alerts

A newly decoded/forwarded alert that updates a currently active alert *(has the same EAS code and matching FIPS)* can optionally expire the active alert. Choose the setting below to control the update expiration policy.

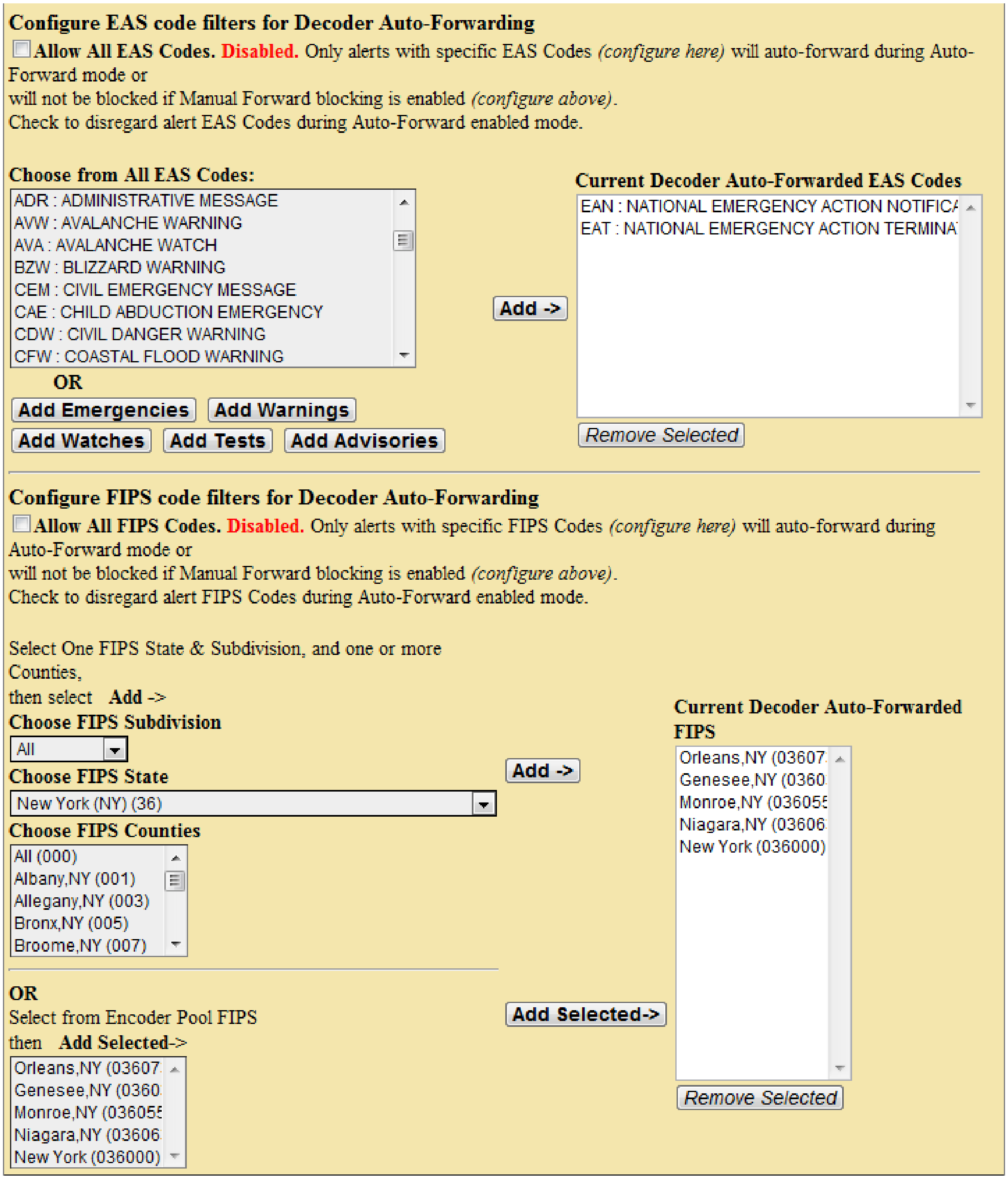
☑ **Auto-expire updated decoded and forwarded alerts.** ***Enabled***, *uncheck to disable. Update/expiration matching is based on EAS code, FIPS, and EAS Station ID.*

Cancel/Update Expiration requires:

○ Exact FIPS match. ● **Overlapping FIPS match.**

☑ **Matching Station ID.** ***Enabled***, *uncheck to disable.*

Setup > Decoder > Forwarding: Duplicate Alert Handling & Update Policy for Active Alerts



Configure EAS code filters for Decoder Auto-Forwarding

□ **Allow All EAS Codes.** Disabled. Only alerts with specific EAS Codes *(configure here)* will auto-forward during Auto-Forward mode or
will not be blocked if Manual Forward blocking is enabled *(configure above)*.
Check to disregard alert EAS Codes during Auto-Forward enabled mode.

Choose from All EAS Codes:

ADR : ADMINISTRATIVE MESSAGE
AVW : AVALANCHE WARNING
AVA : AVALANCHE WATCH
BZW : BLIZZARD WARNING
CEM : CIVIL EMERGENCY MESSAGE
CAE : CHILD ABDUCTION EMERGENCY
CDW : CIVIL DANGER WARNING
CFW : COASTAL FLOOD WARNING

OR

Current Decoder Auto-Forwarded EAS Codes

EAN : NATIONAL EMERGENCY ACTION NOTIFICA
EAT : NATIONAL EMERGENCY ACTION TERMINA

Configure FIPS code filters for Decoder Auto-Forwarding

□ **Allow All FIPS Codes.** Disabled. Only alerts with specific FIPS Codes *(configure here)* will auto-forward during Auto-Forward mode or
will not be blocked if Manual Forward blocking is enabled *(configure above)*.
Check to disregard alert FIPS Codes during Auto-Forward enabled mode.

Select One FIPS State & Subdivision, and one or more Counties,
then select **Add ->**

Choose FIPS Subdivision

All

Choose FIPS State

New York (NY) (36)

Choose FIPS Counties

All (000)
Albany,NY (001)
Allegany,NY (003)
Bronx,NY (005)
Broome,NY (007)

OR

Select from Encoder Pool FIPS
then **Add Selected->**

Orleans,NY (03607
Genesee,NY (0360
Monroe,NY (03605
Niagara,NY (03606
New York (036000)

Current Decoder Auto-Forwarded FIPS

Orleans,NY (03607
Genesee,NY (0360
Monroe,NY (03605
Niagara,NY (03606
New York (036000)

Setup > Decoder > Forwarding: EAS Codes and FIPS Codes

Configure EAS Types for Decoder Auto-Forwarding

Click the box to select or de-select auto-forwarding for specific EAS Codes or ALL EAS codes.

Configure Specific EAS Codes

Choose each EAS code to auto-forward. Then click Add. Codes selected for auto-forwarding will appear in the **Current Decoder Auto-Forwarded EAS Codes** field to the right.

To remove a code from the auto-forward list, select a line in the **Current Decoder Auto-Forwarded EAS Codes** field and click Remove Selected. All operations are immediate.

Configure FIPS for Decoder Auto-Forwarding
Click the box to select or de-select auto-forwarding for specific FIPS Codes or ALL FIPS codes.

Specific FIPS Codes
Choose each FIPS location code for the Subdivision, State (or territory) and the County (or County Equivalent), which should be auto-forwarded. Then click Add. FIPS locations selected for automatic forwarding will appear in the **Current Decoder Auto-Forwarded FIPS** field to the right.

NOTE: When choosing the FIPS codes that you would like to filter, be sure to **choose the entire state FIPS code**. This will not send you alerts for every county, but rather it will filter in alerts that apply to the whole state. For example: New York (036000) in the previous screenshot.

To remove a location from the auto-forward FIPS list, select a line in the **Current Decoder Auto-Forwarded FIPS** field and click Remove Selected. All operations are immediate.

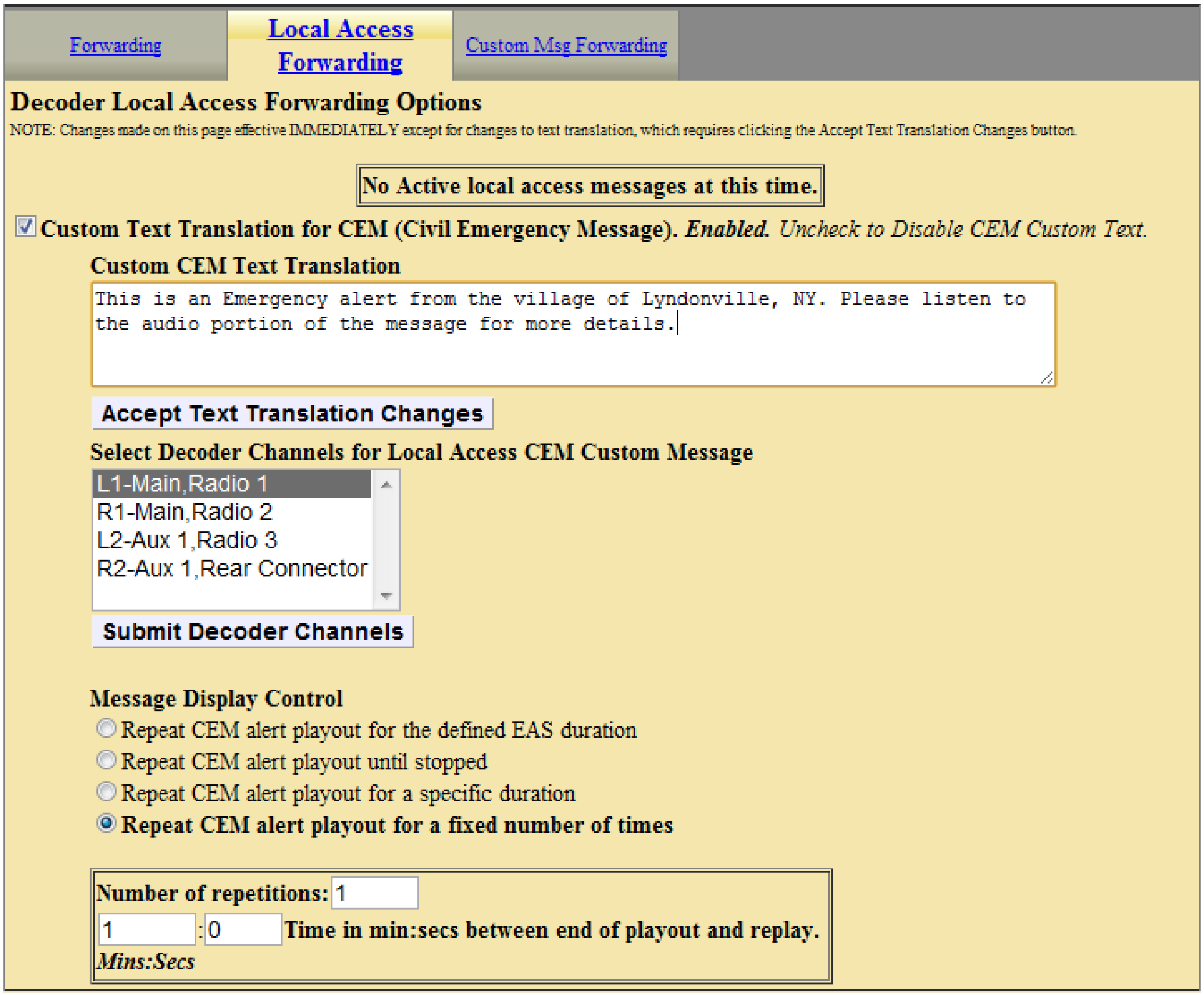
4.8.2 Local Access Forwarding

This feature, when enabled, allows a custom translation of a Civil Emergency Message when it is received. The main use for this feature is in conjunction with the Monroe Electronics model 988-telephone device. When an alert is active a cancel button is displayed on this page so the message can be terminated.

Custom CEM Text Translation
This box is where the actual text that the customer will see is typed. After the message is typed the “Accept Text Translation Changes” button must be pressed.

Select Decoder Channel
This selection box is where the user programs which of the audio inputs is listened to for the CEM to be used with the custom translation. All other audio sources will display the standard translation of the CEM message.

Message Display Control
This selection determines how the message is repeated.



Forwarding | Local Access Forwarding | Custom Msg Forwarding

Decoder Local Access Forwarding Options

NOTE: Changes made on this page effective IMMEDIATELY except for changes to text translation, which requires clicking the Accept Text Translation Changes button.

No Active local access messages at this time.

☑ Custom Text Translation for CEM (Civil Emergency Message). *Enabled. Uncheck to Disable CEM Custom Text.*

Custom CEM Text Translation

```
This is an Emergency alert from the village of Lyndonville, NY. Please listen to
the audio portion of the message for more details.
```

Accept Text Translation Changes

Select Decoder Channels for Local Access CEM Custom Message

- L1-Main,Radio 1
- R1-Main,Radio 2
- L2-Aux 1,Radio 3
- R2-Aux 1,Rear Connector

Submit Decoder Channels

Message Display Control

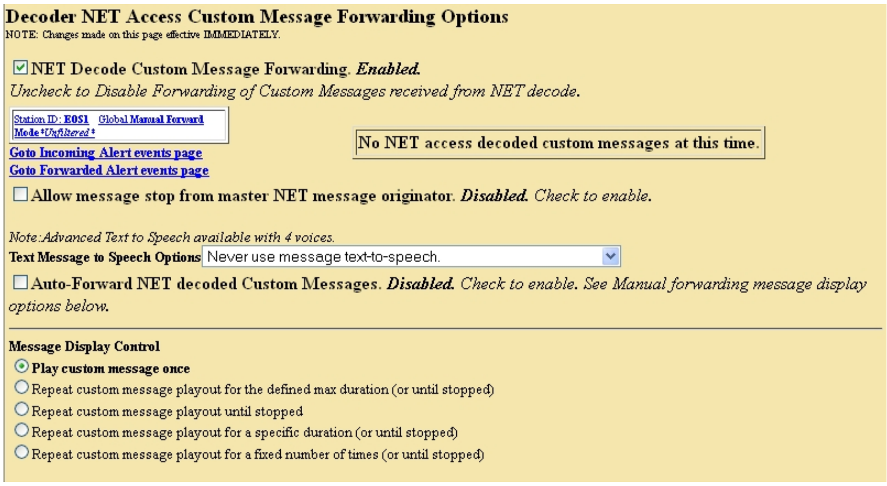
○ Repeat CEM alert playout for the defined EAS duration
○ Repeat CEM alert playout until stopped
○ Repeat CEM alert playout for a specific duration
● **Repeat CEM alert playout for a fixed number of times**

Number of repetitions: 1
1 : 0 **Time in min:secs between end of playout and replay.**
Mins:Secs

Setup > Decoder > Local Access Forwarding

4.8.3 Custom Message Forwarding

This tab configures the options that your One-Net uses to control custom messages that are decoded. The instructions on the page are self-explanatory.



Decoder NET Access Custom Message Forwarding Options

NOTE: Changes made on this page effective IMMEDIATELY.

☑ NET Decode Custom Message Forwarding. ***Enabled.***
Uncheck to Disable Forwarding of Custom Messages received from NET decode.

Station ID: **E0S1** Global Manual Forward Mode **Unfiltered**

No NET access decoded custom messages at this time.

Goto Incoming Alert events page
Goto Forwarded Alert events page

☐ Allow message stop from master NET message originator. ***Disabled.*** *Check to enable.*

Note:Advanced Text to Speech available with 4 voices.
Text Message to Speech Options Never use message text-to-speech.

☐ Auto-Forward NET decoded Custom Messages. ***Disabled.*** *Check to enable. See Manual forwarding message display options below.*

Message Display Control

● **Play custom message once**
○ Repeat custom message playout for the defined max duration (or until stopped)
○ Repeat custom message playout until stopped
○ Repeat custom message playout for a specific duration (or until stopped)
○ Repeat custom message playout for a fixed number of times (or until stopped)

Setup > Decoder > Custom Msg Forwarding

4.9 Setup > Encoder

EAS alert encoding, called origination, is when the digital codes and alert audio tones and message defined by the EAS protocol, are assembled and played over a broadcast medium for which EAS decoders might be listening. The One-Net^{SE} makes this task very easy. Every action needed to encode and send EAS is available on a single page of the One-Net^{SE} Web Interface.

There are two sub-pages on the **Setup Encoder** screen:

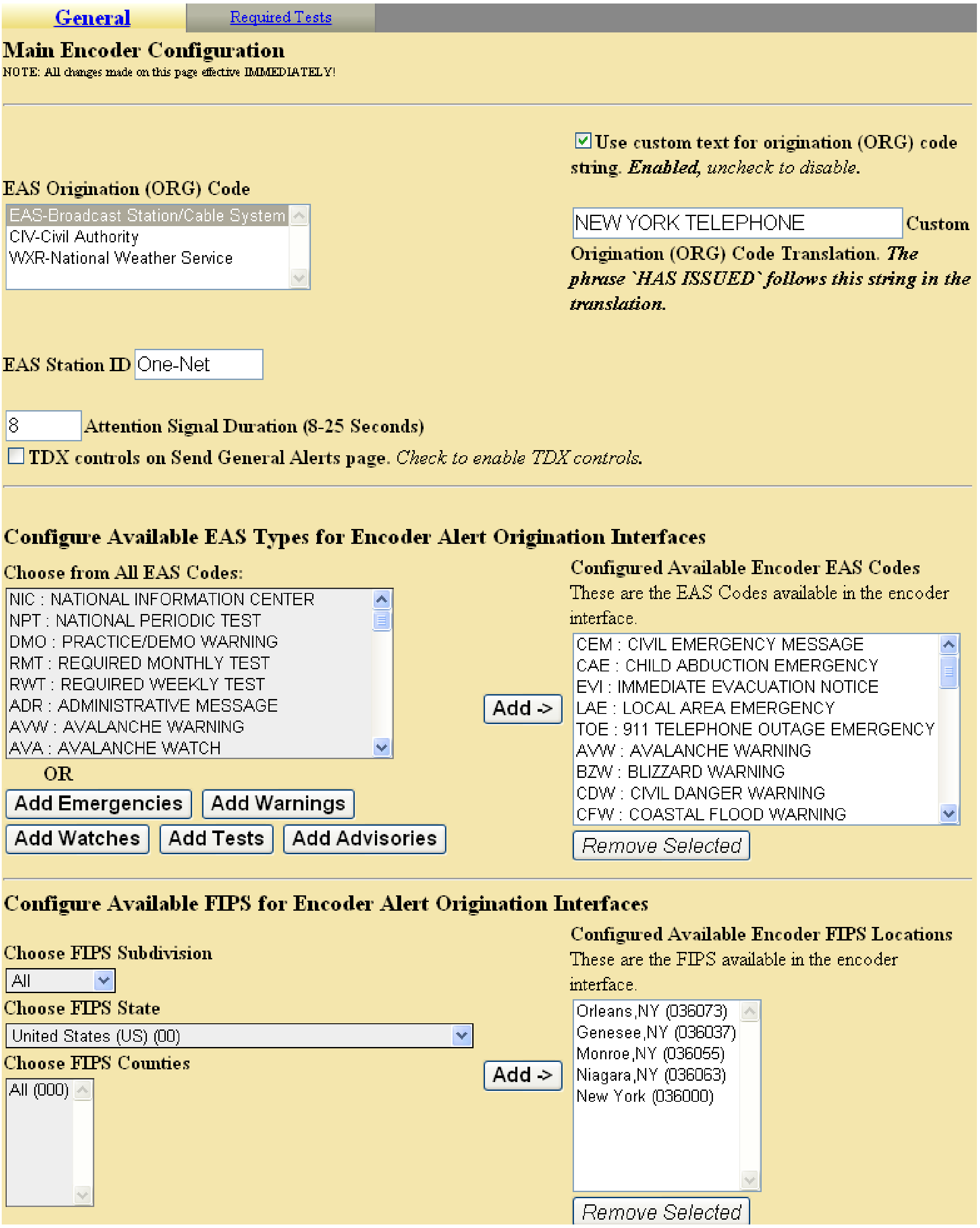
General **Required Tests**

To run EAS encoding, a One-Net^{SE} must be configured with a valid Encoder license key. This is entered on the **Setup** > **Server** page. Without a valid license key, the One-Net^{SE} will not show a **Setup Encoder** page nor the main **Encoder** menu tab. See section 5.1 Setup Server. There are some configuration tasks that need to be done on the **Setup** > **Encoder** pages before you use the One-Net^{SE} encoder.

4.9.1 Setup Encoder > General

The **General** sub-page is used to set the EAS Origination code, the EAS station ID, and commonly used alert types and FIPS locations. This page allows configuration of some basic items needed to use the EAS encoder.

NOTE: Unlike most configuration pages, changes made to this page are effective immediately and do not require clicking an Accept Changes button.



Main Encoder Configuration

NOTE: All changes made on this page effective IMMEDIATELY!

☑ Use custom text for origination (ORG) code string. *Enabled, uncheck to disable.*

EAS Origination (ORG) Code

- EAS-Broadcast Station/Cable System
- CIV-Civil Authority
- WXR-National Weather Service

NEW YORK TELEPHONE Custom Origination (ORG) Code Translation. *The phrase `HAS ISSUED` follows this string in the translation.*

EAS Station ID One-Net

8 Attention Signal Duration (8-25 Seconds)

□ TDX controls on Send General Alerts page. *Check to enable TDX controls.*

Configure Available EAS Types for Encoder Alert Origination Interfaces

Choose from All EAS Codes:

- NIC : NATIONAL INFORMATION CENTER
- NPT : NATIONAL PERIODIC TEST
- DMO : PRACTICE/DEMO WARNING
- RMT : REQUIRED MONTHLY TEST
- RWT : REQUIRED WEEKLY TEST
- ADR : ADMINISTRATIVE MESSAGE
- AVW : AVALANCHE WARNING
- AVA : AVALANCHE WATCH

OR

Configured Available Encoder EAS Codes

These are the EAS Codes available in the encoder interface.

- CEM : CIVIL EMERGENCY MESSAGE
- CAE : CHILD ABDUCTION EMERGENCY
- EVI : IMMEDIATE EVACUATION NOTICE
- LAE : LOCAL AREA EMERGENCY
- TOE : 911 TELEPHONE OUTAGE EMERGENCY
- AVW : AVALANCHE WARNING
- BZW : BLIZZARD WARNING
- CDW : CIVIL DANGER WARNING
- CFW : COASTAL FLOOD WARNING

Configure Available FIPS for Encoder Alert Origination Interfaces

Choose FIPS Subdivision All

Choose FIPS State United States (US) (00)

Choose FIPS Counties All (000)

Configured Available Encoder FIPS Locations

These are the FIPS available in the encoder interface.

- Orleans,NY (036073)
- Genesee,NY (036037)
- Monroe,NY (036055)
- Niagara,NY (036063)
- New York (036000)

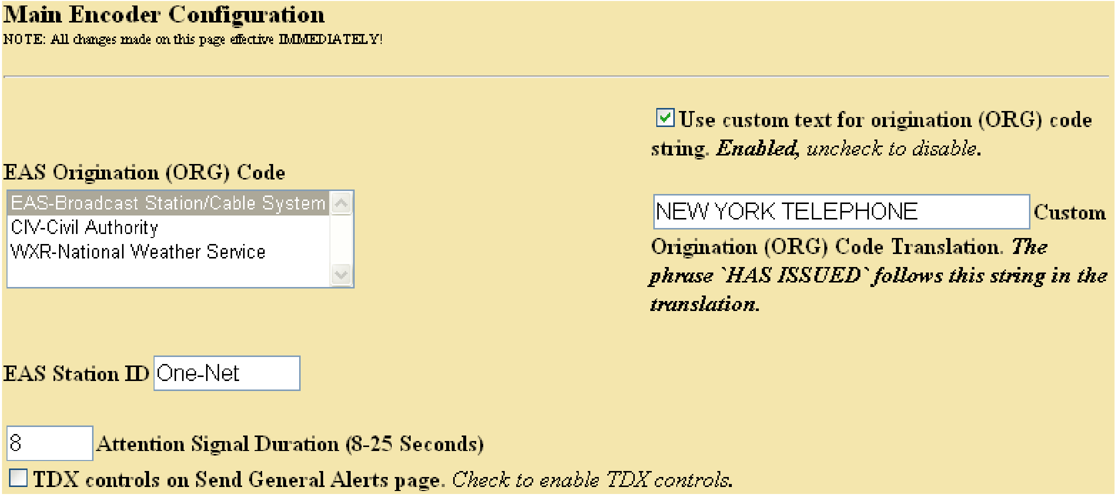
Setup > Encoder > General

EAS Origination Code

Select the EAS Originator code for your system from the selection menu. This code categorizes the type of organization sending the EAS. Select the code that best describes your organization:

- Broadcast station or cable system: Choose EAS
- Civil authorities: Choose CIV
- National Weather Service: Choose WXR
- Primary Entry Point System: Choose PEP

This code is placed in the EAS alert message when the encoder originates an EAS alert. This same code is used for both manually forwarded alerts and automatically forwarded alerts. If these descriptions do not match your application (i.e. Telephone Company) you should select EAS, and place a check in the box for custom text for translation for Origination Code. When this is enabled you will be able to customize how the text is displayed. An example of this is shown below. When a Weekly test is activated by the One-Net^{SE} the displayed the text will be "NEW YORK TELEPHONE HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 10:36 AM ON MAR 23, 2012 EFFECTIVE UNTIL 10:51 AM. MESSAGE FROM NY12345."



Main Encoder Configuration

NOTE: All changes made on this page effective IMMEDIATELY!

EAS Origination (ORG) Code

- EAS-Broadcast Station/Cable System
- CIV-Civil Authority
- WXR-National Weather Service

☑ Use custom text for origination (ORG) code string. ***Enabled**, uncheck to disable.*

NEW YORK TELEPHONE **Custom Origination (ORG) Code Translation.** ***The phrase `HAS ISSUED` follows this string in the translation.***

EAS Station ID: One-Net

8 Attention Signal Duration (8-25 Seconds)

☐ TDX controls on Send General Alerts page. *Check to enable TDX controls.*

Setup > Encoder > General

EAS Station ID

Type up to 8 characters in this text field to identify the Station ID for this One-Net^{SE}. This code will be included in all originated alerts; both manually forwarded and automatically forwarded alerts.

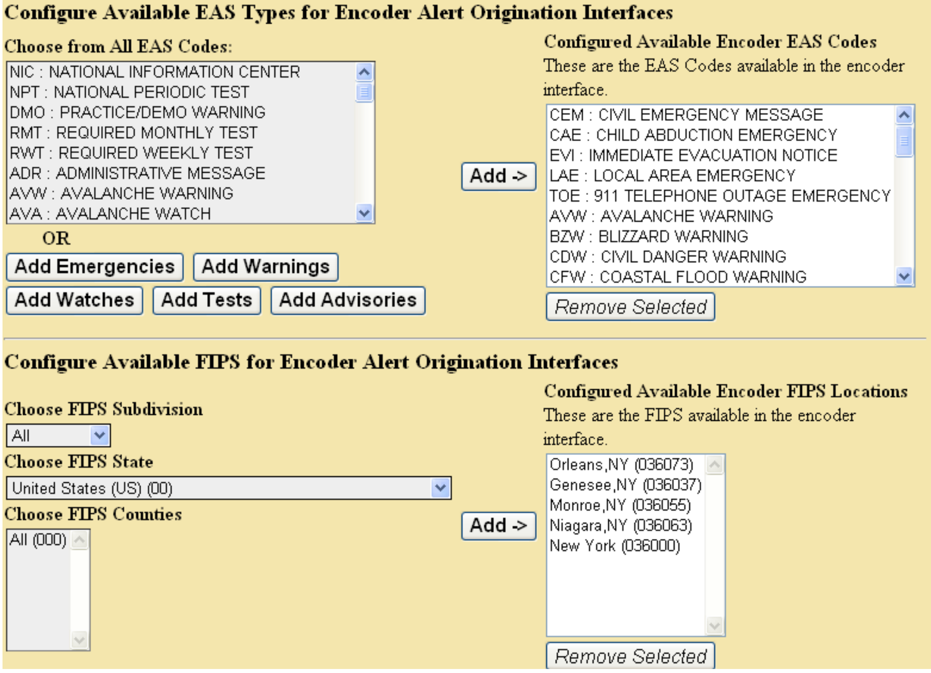
NOTE: Encoder Station ID is different from Forwarding Station ID.

Attention Signal Duration

This control allows setting the duration of the two-tone attention signal from 8-25 seconds.

Configure Available EAS Codes for Encoder

The One-Net^{SE} must be configured for the types of EAS alerts that will be used during alert encoding. This is done by constructing a list of alert types.



Configure Available EAS Types for Encoder Alert Origination Interfaces

Choose from All EAS Codes:

NIC : NATIONAL INFORMATION CENTER
NPT : NATIONAL PERIODIC TEST
DMO : PRACTICE/DEMO WARNING
RMT : REQUIRED MONTHLY TEST
RWT : REQUIRED WEEKLY TEST
ADR : ADMINISTRATIVE MESSAGE
AVW : AVALANCHE WARNING
AVA : AVALANCHE WATCH

OR

Configured Available Encoder EAS Codes

These are the EAS Codes available in the encoder interface.

CEM : CIVIL EMERGENCY MESSAGE
CAE : CHILD ABDUCTION EMERGENCY
EVI : IMMEDIATE EVACUATION NOTICE
LAE : LOCAL AREA EMERGENCY
TOE : 911 TELEPHONE OUTAGE EMERGENCY
AVW : AVALANCHE WARNING
BZW : BLIZZARD WARNING
CDW : CIVIL DANGER WARNING
CFW : COASTAL FLOOD WARNING

Configure Available FIPS for Encoder Alert Origination Interfaces

Choose FIPS Subdivision: All

Choose FIPS State: United States (US) (00)

Choose FIPS Counties: All (000)

Configured Available Encoder FIPS Locations

These are the FIPS available in the encoder interface.

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)
New York (036000)

Setup > Encoder > General: EAS Types and FIPS Codes

- To build or edit the list, choose an EAS code type from the pop down menu and click Add. Codes selected for encoding will appear in the **Configured Available Encoder EAS Codes** box to the right. Be sure and add all common EAS types that will be used when encoding alerts from this One-Net^{SE}. If you find you are missing a code during encoding, you can edit the pool list at any time. To add a group of messages of a certain type, you can click one of the buttons (i.e. Add Watches).
- To remove a code from the **Configured Available Encoder EAS Codes** list, select and click Remove Selected.

All operations are immediate.

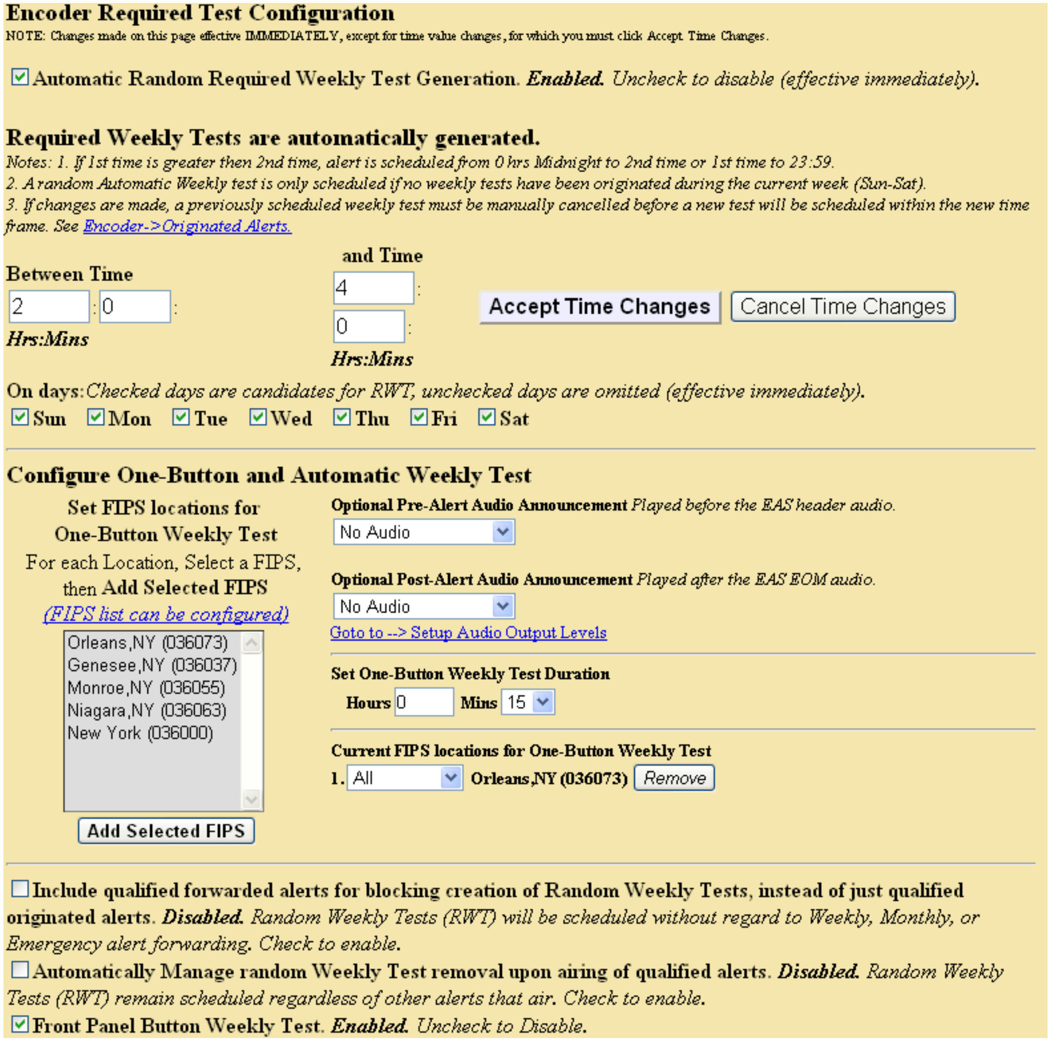
Configured Available Encoder FIPS Locations

The One-Net^{SE} must also be configured for the commonly used FIPS locations that will be used during alert encoding. Just as for the EAS Codes list, a commonly used list of FIPS locations need to be constructed from the list of all possible FIPS. The list is referred to on the One-Net^{SE} as the Configured Available Encoder FIPS Locations. There are thousands of FIPS location codes, so building this list of commonly used FIPS codes saves time during typical alert encoding. In the rare event that other FIPS locations are needed, the list can be edited at any time.

- Choose each FIPS location code for the Subdivision, State (or territory) and the County (or County Equivalent). Then click Add. FIPS locations selected for automatic forwarding will appear in the **Configured Available Encoder FIPS Locations** field to the right. Make sure and add all the common FIPS codes that will be used when encoding alerts from this One-Net^{SE}. Otherwise, while constructing an alert, you may have to return to this screen to add any FIPS codes that are missing from the Configured Available Encoder FIPS Locations list on the **Encoder > Send EAS >General EAS** screen.

- To remove a location from the **Configured Available Encoder FIPS Locations**, select a line in the **Configured Available Encoder FIPS Locations** field and click Remove Selected.
- All operations are immediate.
- If when encoding an alert on the screen **Encoder** > **Send EAS** > **General EAS** screen, you find that a FIPS location code is missing, there is a link on that screen back to the **Setup** > **Encoder** > **General** screen so you can amend the FIPS pool.

4.9.2 Setup Encoder > Required Tests



Encoder Required Test Configuration

NOTE: Changes made on this page effective IMMEDIATELY, except for time value changes, for which you must click Accept Time Changes.

☑ Automatic Random Required Weekly Test Generation. ***Enabled.*** *Uncheck to disable (effective immediately).*

Required Weekly Tests are automatically generated.

Notes: 1. If 1st time is greater then 2nd time, alert is scheduled from 0 hrs Midnight to 2nd time or 1st time to 23:59.
2. A random Automatic Weekly test is only scheduled if no weekly tests have been originated during the current week (Sun-Sat).
3. If changes are made, a previously scheduled weekly test must be manually cancelled before a new test will be scheduled within the new time frame. See Encoder->Originated Alerts.

Between Time 2 : 0 : ***Hrs:Mins***

and Time 4 : 0 : ***Hrs:Mins***

On days: *Checked days are candidates for RWT, unchecked days are omitted (effective immediately).*
☑ Sun ☑ Mon ☑ Tue ☑ Wed ☑ Thu ☑ Fri ☑ Sat

Configure One-Button and Automatic Weekly Test

Set FIPS locations for One-Button Weekly Test
For each Location, Select a FIPS, then **Add Selected FIPS**
(FIPS list can be configured)

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)
New York (036000)

Optional Pre-Alert Audio Announcement *Played before the EAS header audio.*
No Audio

Optional Post-Alert Audio Announcement *Played after the EAS EOM audio.*
No Audio
Goto to --> Setup Audio Output Levels

Set One-Button Weekly Test Duration
Hours 0 **Mins** 15

Current FIPS locations for One-Button Weekly Test
1. All **Orleans,NY (036073)**

☐ Include qualified forwarded alerts for blocking creation of Random Weekly Tests, instead of just qualified originated alerts. ***Disabled.*** *Random Weekly Tests (RWT) will be scheduled without regard to Weekly, Monthly, or Emergency alert forwarding. Check to enable.*
☐ Automatically Manage random Weekly Test removal upon airing of qualified alerts. ***Disabled.*** *Random Weekly Tests (RWT) remain scheduled regardless of other alerts that air. Check to enable.*
☑ Front Panel Button Weekly Test. ***Enabled.*** *Uncheck to Disable.*

Setup > Encoder > Required Tests

The **Required Tests** sub-page is used to issue pre-configured Weekly Test alerts. The One-Net^{SE} can be configured to send a Required Weekly test with a single button push.

Required Weekly Tests

- The tests can be automatically generated within a daily time frame. You can configure the test for specific FIPS codes and the duration of the test.
- You can select the box to enable or disable Automatic Random Required Weekly Test Generation. When enabled you can edit the times and days that you want the

Automatic Required Weekly Test to occur by changing the between times, and the On Days followed by clicking the Accept Time Changes button.

Configure One-Button and Automatic Weekly Test.

- Set **FIPS locations** for and **Duration** of the weekly test.
- Select a FIPS location(s), and then click Add Selected FIPS.
- The FIPS location(s) added will appear in the list of **Current FIPS locations for One-Button Weekly Test** to the right.
- You can edit the subdivision in the first field for each location.
- You can remove a FIPS location from the list-using Remove.
- You can Enable/Disable the front panel button activation of a Weekly Test.

4.10 Setup > Net Alerts

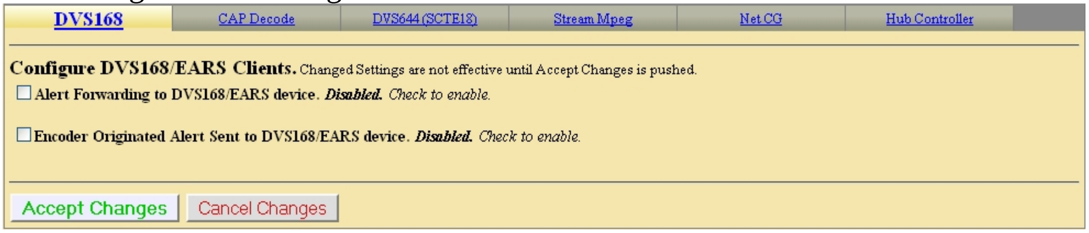
One of the benefits of the One-Net's inherent network nature is that it can support a variety of methods for network forwarding/broadcast of EAS alerts. Presently the One-Net^{SE} supports DVS-168 network protocol, DVS-644/SCTE-18 alert messaging, Streaming Mpeg, and Remote activation of relays using the Hub Controller Model R190A. If interfaces are not available, follow the link to License Key Manager to Setup > Server (see section 5.1). Select one of the protocols for editing by using the provided tabs at the top of the Net Alerts Configuration page. A separate interface is provided per Network protocol interface type.

There are four tabbed sub-pages on the **Setup Net Alerts** screen. They are:

EAS NET CAP Decode DVS664 (SCTE 18) Net CG Hub Controller

4.10.1 DVS168

If DVS-168 is available on the One-NetSE, use this tab to enable this protocol for forwarding and/or sending alerts.



Configure DVS168/EARS Clients. Changed Settings are not effective until Accept Changes is pushed.

□ Alert Forwarding to DVS168/EARS device. ***Disabled.*** *Check to enable.*

□ Encoder Originated Alert Sent to DVS168/EARS device. ***Disabled.*** *Check to enable.*

Setup > Net Alerts > DVS168

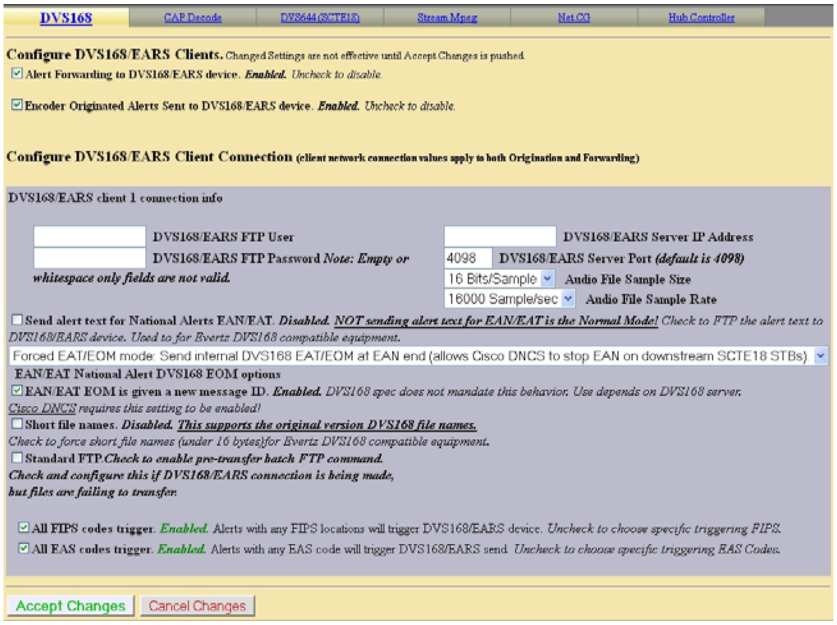
Alert Forwarding to DVS168/EARS device.
Placing a check in this box will allow Alerts that are received from a Broadcaster to be forwarded through the One-Net^{SE} and sent out using the DVS168 protocol.

Encoder Alert Send to DVS168/EARS device.
Placing a check in this box will allow Alerts that are originated by the One-Net^{SE} to be sent out using the DVS168 protocol.

Alert Forwarding and sending to DVS168/EARS Client
Once forwarding and/or sending have been enabled, four information fields must be configured to identify the DVS-168/EARS host. See the provided screenshot. Enter the IP address, the IP port, the FTP user and password, select Audio File Sample Size, and the Audio File Sample Rate (Default is 16000 Sample/sec). Alerts with all FIPS codes can

be forwarded by placing a check mark in the box to enable all FIPS to trigger DVS168/EARS device. Alerts for specific FIPS areas can also be filtered/passed through the protocol. Remove the check mark from the box that says **All FIPS codes trigger** the DVS168/EARS device to enable FIPS forwarding control. When configured, select a list of FIPS codes that will be used to check against the incoming forwarded alert. If any of these FIPS are included in the incoming forwarded alert, the alert will be sent to the DVS-168 client.

Remove the check mark from the box that says **All EAS codes trigger** the DVS168/EARS device to enable EAS forwarding control. When configured, select a list of EAS codes that will be used to check against the incoming forwarded alert. If any of these EAS are included in the incoming forwarded alert, the alert will be sent to the DVS-168 client.



Configure DVS168/EARS Clients. Changed Settings are not effective until Accept Changes is pushed.

☑ Alert Forwarding to DVS168/EARS device. ***Enabled.*** *Uncheck to disable.*

☑ Encoder Originated Alerts Sent to DVS168/EARS device. ***Enabled.*** *Uncheck to disable.*

Configure DVS168/EARS Client Connection **(client network connection values apply to both Origination and Forwarding)**

DVS168/EARS client 1 connection info

DVS168/EARS FTP User	DVS168/EARS Server IP Address
DVS168/EARS FTP Password ***Note: Empty or whitespace only fields are not valid.***	4098 DVS168/EARS Server Port ***(default is 4098)***
	16 Bits/Sample Audio File Sample Size
	16000 Sample/sec Audio File Sample Rate

☐ Send alert text for National Alerts EAN/EAT. ***Disabled.*** ***NOT sending alert text for EAN/EAT is the Normal Mode!*** *Check to FTP the alert text to DVS168/EARS device. Used to for Evertz DVS168 compatible equipment.*

Forced EAT/EOM mode: Send internal DVS168 EAT/EOM at EAN end (allows Cisco DNCS to stop EAN on downstream SCTE18 STBs).

EAN/EAT National Alert DVS168 EOM options

☑ EAN/EAT EOM is given a new message ID. ***Enabled.*** *DVS168 spec does not mandate this behavior. Use depends on DVS168 server. Cisco DNCS requires this setting to be enabled!*

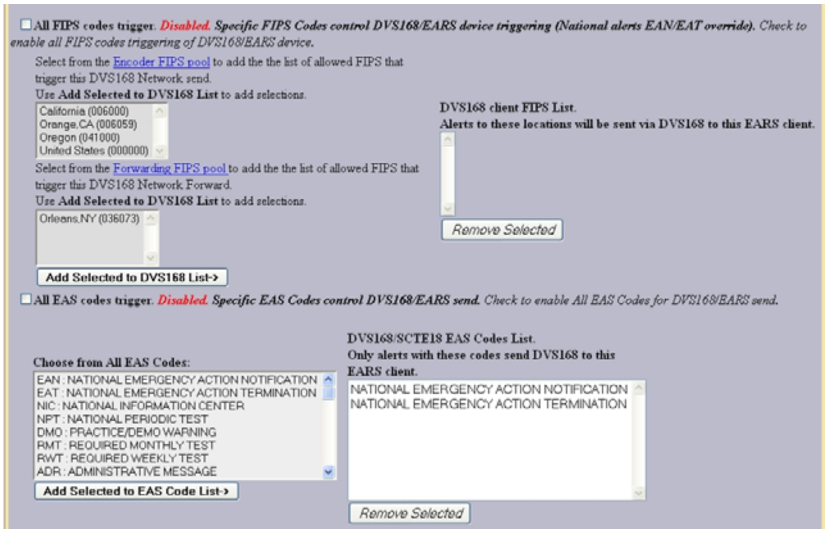
☐ Short file names. ***Disabled.*** ***This supports the original version DVS168 file names.*** *Check to force short file names (under 16 bytes)for Evertz DVS168 compatible equipment.*

☐ Standard FTP.***Check to enable pre-transfer batch FTP command. Check and configure this if DVS168/EARS connection is being made, but files are failing to transfer.***

☑ All FIPS codes trigger. ***Enabled.*** Alerts with any FIPS locations will trigger DVS168/EARS device. *Uncheck to choose specific triggering FIPS.*

☑ All EAS codes trigger. ***Enabled.*** Alerts with any EAS code will trigger DVS168/EARS send. *Uncheck to choose specific triggering EAS Codes.*

Setup > Net Alerts > DVS168


Add Selected to DVS168 List->
Remove Selected
Add Selected to EAS Code List->
Remove Selected

☐ All FIPS codes trigger. ***Disabled.*** ***Specific FIPS Codes control DVS168/EARS device triggering (National alerts EAN/EAT override).*** *Check to enable all FIPS codes triggering of DVS168/EARS device.*

Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this DVS168 Network send.
Use **Add Selected to DVS168 List** to add selections.

California (006000)
Orange,CA (006059)
Oregon (041000)
United States (000000)

Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this DVS168 Network Forward.
Use **Add Selected to DVS168 List** to add selections.

Orleans,NY (036073)

DVS168 client FIPS List.
Alerts to these locations will be sent via DVS168 to this EARS client.

☐ All EAS codes trigger. ***Disabled.*** ***Specific EAS Codes control DVS168/EARS send.*** *Check to enable All EAS Codes for DVS168/EARS send.*

Choose from All EAS Codes:

EAN : NATIONAL EMERGENCY ACTION NOTIFICATION
EAT : NATIONAL EMERGENCY ACTION TERMINATION
NIC : NATIONAL INFORMATION CENTER
NPT : NATIONAL PERIODIC TEST
DMO : PRACTICE/DEMO WARNING
RMT : REQUIRED MONTHLY TEST
RWT : REQUIRED WEEKLY TEST
ADR : ADMINISTRATIVE MESSAGE

DVS168/SCTE18 EAS Codes List.
Only alerts with these codes send DVS168 to this EARS client.

NATIONAL EMERGENCY ACTION NOTIFICATION
NATIONAL EMERGENCY ACTION TERMINATION

Setup > Net Alerts >DVS168: FIPS and EAS Options

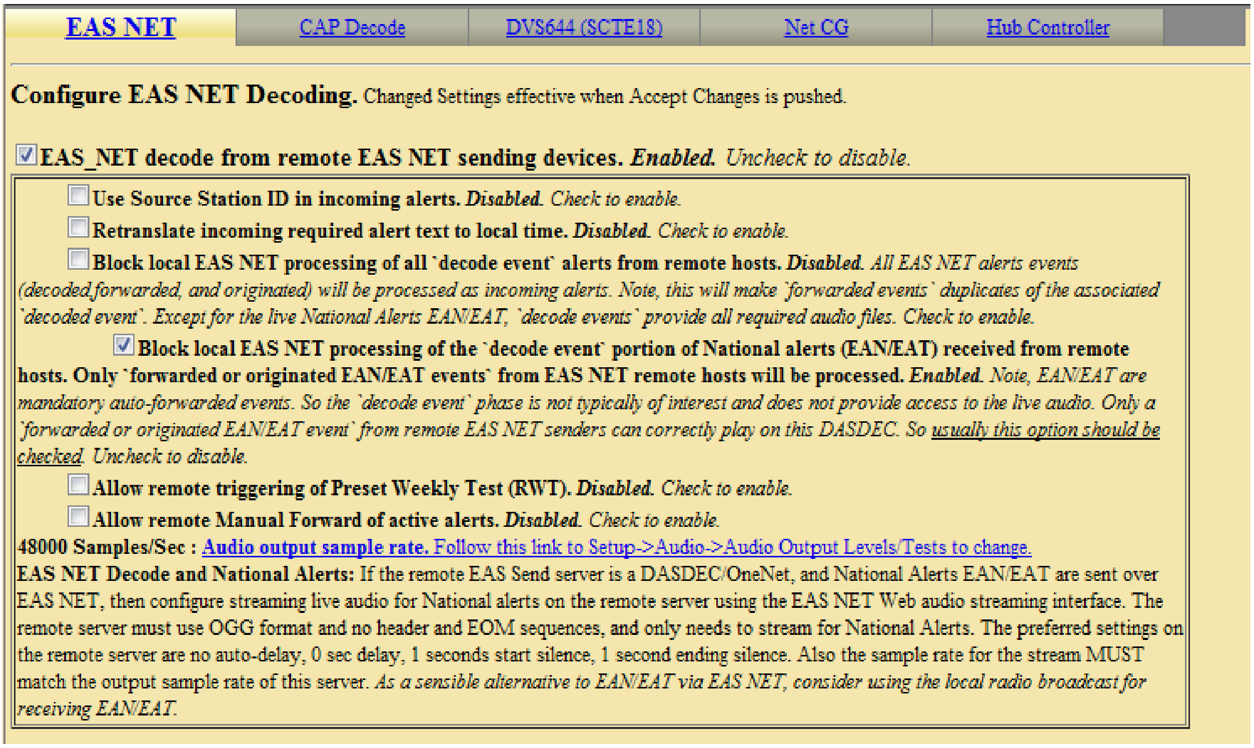
When an alert is forwarded to a DVS-168 client, a WAV file of the EAS audio is constructed and a text file of the alert details is constructed. These are FTPed to the DVS-168 client. Then a socket is temporarily opened from the One-NetSE to the DVS-168 client, and a control message is sent that describes the alert. The Operation Log will log each of these actions and their success or failure.

4.10.2 EAS NET

There are three sections on the EAS NET sub-page to configure: EAS NET Decoding, Web audio streaming, EAS NET Clients.

1. **Configure EAS NET Decoding**

   Discussion: EAS Net Decoding is included with the EAS NET license key. There is only one toggle button to enable EAS NET decode. Check the toggle labeled **"EAS_NET decode from remote EAS NET sending devices"**. The One-Net will then be able to receive alerts sent via EAS NET send from a properly configured remote One-Net. EAS NET decoded alerts are clearly labeled in the **Decoder > Decoded Alerts** status page as being received from input channel EASNET. The alert event files are stored in a separate disk storage area from audio decoded alerts. Other than those differences, EAS NET decoded alerts are handled the same as alerts decoded from the audio inputs. Click the **Accept Changes** button to save changes.



Configure EAS NET Decoding. Changed Settings effective when Accept Changes is pushed.

☑ **EAS_NET decode from remote EAS NET sending devices.** ***Enabled.*** *Uncheck to disable.*

☐ **Use Source Station ID in incoming alerts.** ***Disabled.*** *Check to enable.*

☐ **Retranslate incoming required alert text to local time.** ***Disabled.*** *Check to enable.*

☐ **Block local EAS NET processing of all `decode event` alerts from remote hosts.** ***Disabled.*** *All EAS NET alerts events (decoded,forwarded, and originated) will be processed as incoming alerts. Note, this will make `forwarded events` duplicates of the associated `decoded event`. Except for the live National Alerts EAN/EAT, `decode events` provide all required audio files. Check to enable.*

☑ **Block local EAS NET processing of the `decode event` portion of National alerts (EAN/EAT) received from remote hosts. Only `forwarded or originated EAN/EAT events` from EAS NET remote hosts will be processed.** ***Enabled.*** *Note, EAN/EAT are mandatory auto-forwarded events. So the `decode event` phase is not typically of interest and does not provide access to the live audio. Only a `forwarded or originated EAN/EAT event` from remote EAS NET senders can correctly play on this DASDEC. So usually this option should be checked. Uncheck to disable.*

☐ **Allow remote triggering of Preset Weekly Test (RWT).** ***Disabled.*** *Check to enable.*

☐ **Allow remote Manual Forward of active alerts.** ***Disabled.*** *Check to enable.*

48000 Samples/Sec : **Audio output sample rate.** Follow this link to Setup->Audio->Audio Output Levels/Tests to change.

EAS NET Decode and National Alerts: If the remote EAS Send server is a DASDEC/OneNet, and National Alerts EAN/EAT are sent over EAS NET, then configure streaming live audio for National alerts on the remote server using the EAS NET Web audio streaming interface. The remote server must use OGG format and no header and EOM sequences, and only needs to stream for National Alerts. The preferred settings on the remote server are no auto-delay, 0 sec delay, 1 seconds start silence, 1 second ending silence. Also the sample rate for the stream MUST match the output sample rate of this server. *As a sensible alternative to EAN/EAT via EAS NET, consider using the local radio broadcast for receiving EAN/EAT.*

Setup > Net Alerts > EAS NET: Configure EAS Decoding

2. **EAS NET Web audio streaming**

   Discussion: EAS Net Client Web audio Streaming is included with the EAS NET (send) license. This provides a convenient way to stream live alert audio over a network. This is used primarily to provide live EAN/EAT audio from EAS NET send to an EAS NET client device (including another One-Net). The stream is not an

MPEG transport stream. It is an http audio stream. Remote clients must actively load the URL for the stream in order to play it. This can be done via most modern media players. A One-Net with EAS NET decode will automatically use this audio stream as a live input for EAS audio as needed. Refer to the screen shot.

EAS_NET Web (HTTP) Alert Audio streaming during alerts.
Enable this toggle to generate live web streamed audio during alerts. The default values of the options are designed to work for EAN/EAT.

Audio Streaming on all alert types: This checkbox controls audio streaming for National Alerts (EAN/EAT) or all alert types. For testing purposes, the toggle "**Audio streaming on all alert types**" can be enabled to allow all alert types to have audio streaming. Make sure to use this button to test live audio for any remote One-Net EAS NET decoder.

Audio Stream Format: You can select either OGG/Vorbis or MPEG Layer 3 (MP3) audio. For audio to a remote One-Net EAS NET decoder, use OGG.

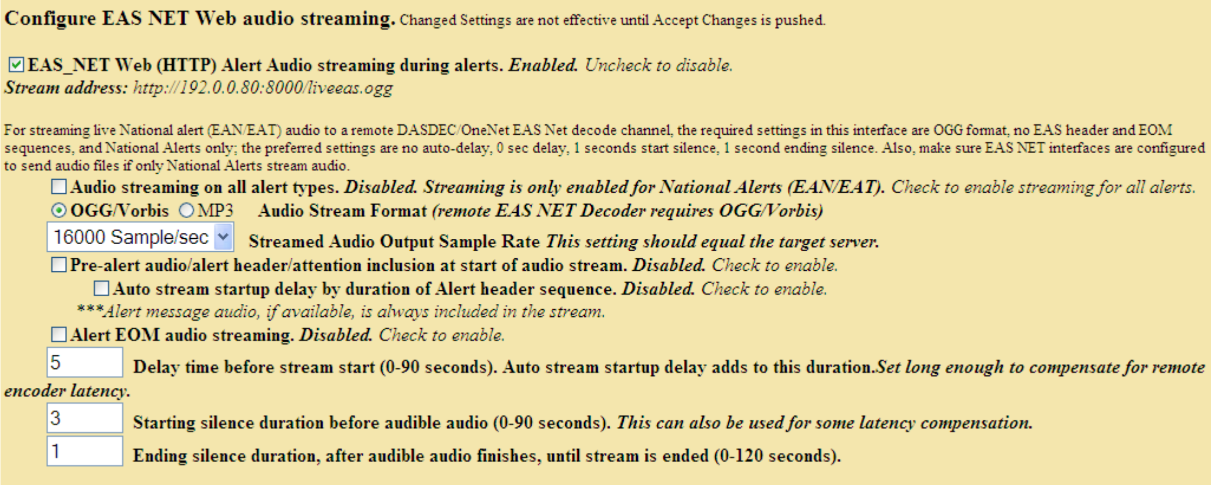
Audio Output Sample Rate Pull-down menu: The correct value for this depends upon the destination. For audio to a remote One-Net EAS NET decoder, use the output sample rate selected on the remote One-Net. Choices are 16000, 32000, 44100, and 48000 samples/sec.

Pre-Alert audio/alert header/attention inclusion at start of audio stream

Pre-Alert EOM Audio Streaming
These two toggle options are included for control of the total content of the alert audio that is streamed. For purposes of this interface, alert audio consists of three parts: (1) Pre-Alert audio/EAS Alert FSK header/Alert Attention signal, (2) Alert audio voice message, and (3) Alert FSK EOM audio. No matter the choices, the second part, alert audio voice message, if it exists, is always streamed. Any combination of these options will work when streaming to a remote One-Net EAS NET decoder. The default is to not stream the header or EOM sequence, just the audio voice message. Use the options as required by the specific application on a remote server. To review, the options allow the inclusion/exclusion of:

1. Pre-Alert audio/EAS Alert FSK header/Alert Attention signal
2. EAS alert FSK EOM.

Delay time before stream start; Starting silence duration; Ending silence duration: This option allows streaming to be delayed by the duration of the alert header. Three numeric text fields allow entry of three additional audio delay components. Each delay is in seconds and applies to a specific location during the audio stream. Use as needed for the specific application.



Configure EAS NET Web audio streaming. Changed Settings are not effective until Accept Changes is pushed.

☑ **EAS_NET Web (HTTP) Alert Audio streaming during alerts.** ***Enabled.*** *Uncheck to disable.*
Stream address: *http://192.0.0.80:8000/liveeas.ogg*

For streaming live National alert (EAN/EAT) audio to a remote DASDEC/OneNet EAS Net decode channel, the required settings in this interface are OGG format, no EAS header and EOM sequences, and National Alerts only; the preferred settings are no auto-delay, 0 sec delay, 1 seconds start silence, 1 second ending silence. Also, make sure EAS NET interfaces are configured to send audio files if only National Alerts stream audio.

□ **Audio streaming on all alert types.** ***Disabled. Streaming is only enabled for National Alerts (EAN/EAT).*** *Check to enable streaming for all alerts.*
● **OGG/Vorbis** ○ MP3 **Audio Stream Format** ***(remote EAS NET Decoder requires OGG/Vorbis)***
16000 Sample/sec **Streamed Audio Output Sample Rate** ***This setting should equal the target server.***
□ **Pre-alert audio/alert header/attention inclusion at start of audio stream.** ***Disabled.*** *Check to enable.*
□ **Auto stream startup delay by duration of Alert header sequence.** ***Disabled.*** *Check to enable.*
****Alert message audio, if available, is always included in the stream.*
□ **Alert EOM audio streaming.** ***Disabled.*** *Check to enable.*
5 **Delay time before stream start (0-90 seconds). Auto stream startup delay adds to this duration.** ***Set long enough to compensate for remote encoder latency.***
3 **Starting silence duration before audible audio (0-90 seconds).** ***This can also be used for some latency compensation.***
1 **Ending silence duration, after audible audio finishes, until stream is ended (0-120 seconds).**

Setup > Net Alerts > EAS NET Configure EAS Web audio streaming

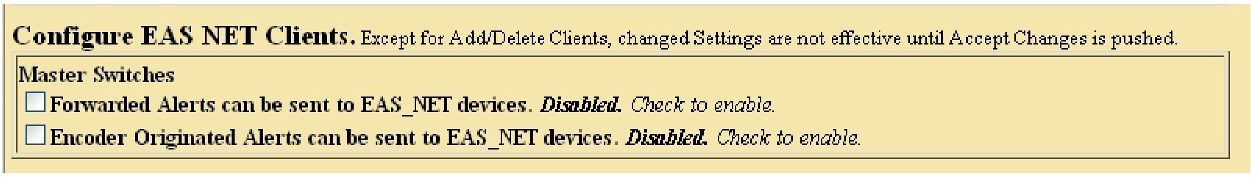
1. **Configure EAS NET Clients**

Two toggles are displayed for enabling EAS NET during alert forwarding and origination.

Alert Forwarding to EAS_NET devices: This toggle enables EAS NET send processing during alert forwarding. It can be enabled / disabled at any time.

Encoder Originated Alerts Sent to EAS_NET devices: This toggle enables EAS NET send processing during alert origination. It can be enabled / disabled at any time.

NOTE: At least one of these toggles must be enabled to allow editing of EAS NET clients. In the screen shot below, both toggles are enabled.



Configure EAS NET Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.

Master Switches
□ Forwarded Alerts can be sent to EAS_NET devices. ***Disabled.*** *Check to enable.*
□ Encoder Originated Alerts can be sent to EAS_NET devices. ***Disabled.*** *Check to enable.*

Setup > Net Alerts > EAS NET Configure EAS NET Clients

2. **Configure EAS_NET Client Connection**

Once enabled, you can create configurations for up to 8 EAS NET clients. Each client can be independently enabled and disabled, allowing an easy way to stop or restart a client for a specific region.

If no client configurations exist, or if you want a new one and less than 8 clients exist, click the **Add EAS NET Client Interface** button to create a new interface configuration.

To edit an existing client interface, select the named client from the pull-down menu **Select EAS_NET client** and edit the fields provided in the table underneath.

To delete a client configuration, select the client and click on **Delete this EAS NET** Client Interface.

To duplicate an existing client interface *(a different name will be automatically generated; less than 8 clients must exist)*, select the **Duplicate EAS NET Client Interface** button. This is the best way to create new client interfaces that are mostly the same as an existing one except for the IP address.

***Careful!* EAS NET client configuration addition, duplication, and deletion is immediate and cannot be canceled.**

Discussion: The screen shot below demonstrates an example client configuration. The controls are described below. The example shows an EAS NET client interface configured to use Secure Copy to send the alert information and audio files to a remote One-Net host. This One-Net would need EAS NET Decode enabled to receive the alert.

During alert processing, the Operation Log will log the success or failure of the EAS NET forwarding/origination action per client.

NOTE: Every client configuration is used for whichever action of alert forwarding and alert origination is currently enabled by the toggles described above.

EAS NET uses a flexible set of LAN communication protocols to send EAS data to a remote device. Generally, the remote device needs to have running software that understands EAS NET files and data formats in order for anything useful to be triggered by an EAS NET event. All EAS NET protocols will send an alert event data notification file or ASCII data string from the One-Net to the EAS NET remote server host. Most protocols also allow for sending separate data files (like audio WAV files).

Various information fields must be configured to identify and correctly communicate to the EAS NET remote client. Common to all are the following:

Client Interface Name - This text box allows the client interface to be given a descriptive name. These names appear in the selection list.

Client Enable/Disable - This toggle provides a quick method for enabling and disabling the EAS NET client.

Remote EAS NET Host IP Address - The field displays the IP address of the remote EAS NET host where the EAS NET event info is sent.

EAS NET Event Transfer Protocol - Displays the Event Transfer protocol. This is simply the LAN communication method used to send the alert event data. Depending upon the Event transfer protocol, other configuration fields are necessary or optional. Some protocols require passwords; others use encryption keys. Most also provide for optional data file connections.

The event transfer protocol options are:

1. ***Secure Copy (SCP) –*** Uses the Secure Shell (SSH) network protocol for both the data file transfers and event file transfer. No passwords are needed. For all of the Secure Shell protocols (**1.3**), passwords are not used. Instead, the One-Net public ssh key id (under /root/.ssh/id_dsa.pub and also displayed at the bottom of the **Server > Status > Network** page) must be added into the remote host's authorized ssh keys list. The keys provide for encrypted data transfer and for secure authentication without a password.

2. ***Secure Shell STDIN Only (SSH) –*** Uses the Secure Shell (SSH) network protocol for the event file transfer. No data files can be sent. This protocol requires that the receiving device read the EAS NET event file from Standard input from within the shell script. In such a configuration, SCP and SSH login to the EAS NET user will not present to the remote platform shell.

3. ***Secure Shell STDIN & Copy (SSH with SCP) –*** This is a variation on protocol #2 above. The event file is sent as in #2. But the Web interface will display a field to enter a second user account for sending data files to the remote host. The Secure Shell (SSH) network protocol is used for both transfers.

4. ***File Transfer Protocol (FTP) –*** Uses the File Transfer Protocol (FTP) network protocol for both the data file transfers and event file transfer. A password is required. FTP does not encrypt or secure passwords during transmission. The password is sent in clear text to the remote host FTP demon. If security is an issue, do not use or design an FTP based EAS NET scheme. Some FTP daemons refuse passive port connections. Use the provided checkbox to enable a non-passive connection if needed.

5. ***TCP event notification –*** Uses a TCP socket from the One-Net to the remote host to send the alert event file. For sending the optional data files, one of FTP or SSH SCP network protocols can be selected. A valid user account on the remote host must be entered. The information described above for passwords and keys apply depending upon the chosen data protocol.

6. ***DVS168/EARS –*** This is a special case of EAS NET. A TCP socket is used to communicate an event notification, while FTP is used to send data files.

7. ***Legacy Mediaroom –*** This is a special protocol bundled under EAS NET when the Microsoft© Mediaroom^{TM} option is licensed.

8. ***Mediaroom2*** **–** This is a special protocol bundled under EAS NET when the Microsoft© Mediaroom^{TM} option is licensed. This is in accordance with the Mediaroom 2.0 software.

9. ***MINERVA*** **–** This is a special protocol bundled under EAS NET when the Minerva option is licensed. A TCP socket is used to communicate an EAS event notification as per the Minerva protocol.

Remote EAS NET Host Port - The field displays the port on the remote EAS NET host where the EAS NET event info is sent.

EAS NET User - Displays the user account name on the remote device. Files sent to the remote host will by default be copied relative to this account home directory.

Current Schema

The schema determines key names of the information fields sent to the EAS NET client's remote host. It also determines file names and paths for any files sent to the remote host. The schema can be edited by clicking on the Edit/Review Schema button.

> ***NOTE: The schema does NOT set the values of the client interface fields.***

Other possible EAS NET Client Configuration Options

Not all of these options will appear for every EAS NET transfer protocol.

Client sends EAS NET alert info during alert play-out

When this option is enabled (checked) the EAS NET alert info is sent out prior to alert play-out. EAS NET prior send is only needed with EAS NET compatible equipment that depends upon GPI controlled delayed alert play-out.

SSH Public Encryption Key link.

The SSH based protocols provide this link to the display of the One-Net public key. This must be copied to remote host's authorization file.

Composite Audio File Send

When enabled (checked) a composite WAV file of the entire EAS audio track will be sent as a separate file to the EAS NET client's remote host. The file name and path on the remote host are determined by the schema.

EAS Audio File send

When enabled (checked) the individual audio sections of the EAS alert will be sent as separate files to the EAS NET client's remote host. The file names and path on the remote host are determined by the schema.

Translation File Send

When enabled (checked) the EAS text Translation will be sent as a separate file to the EAS NET client's remote host. The file name and path on the remote host are determined by the schema.

Translation File Newline Control

When enabled (checked) the EAS text Translation has all newline characters removed. When disabled, the EAS text Translation includes newline characters.

Video Start Delay Factor (0-10 seconds)

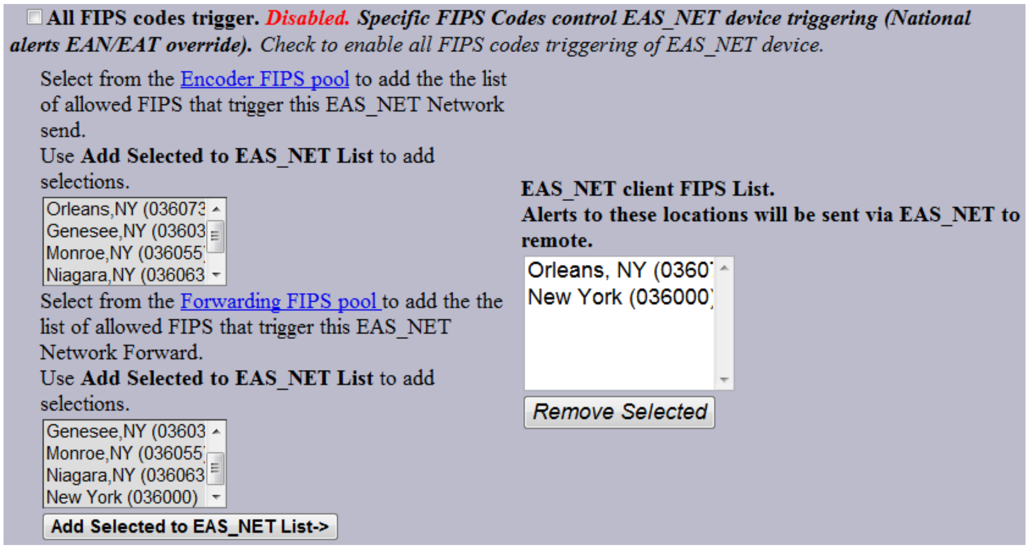
When set to a non-zero value, this adds delay time to the video start time reported in the EAS NET event file. This can be useful to handle latency between the One-Net and the EAS NET remote host.

Duration Extension Time (seconds)

This allows extra time to be added to the internally calculated duration time in the EAS NET event file. Alert Duration == Audio Duration + Extension Time

All FIPS codes trigger

If enabled, all alert FIPS codes will trigger the EAS NET client interface. In the next screen shot this option is disabled. Set the checkbox to enable/disable FIPS code filtered trigger control. If disabled, then the alert FIPS codes are filtered for at least one specific match as a way to control whether or not EAS NET is triggered. Alerts for specific FIPS areas can be filtered as a way to control whether or not EAS NET is triggered. If All FIPS is disabled, select FIPS codes from the provided Encoder FIPS pool or the Forwarding FIPS pool lists and add to the client FIPS list. If any of these FIPS are included in the incoming active forwarded/originated alert, the alert will be sent using the EAS NET client. With careful use of this feature, and with multiple clients, one One-Net can serve many different cable regions at the same time.



☐ **All FIPS codes trigger.** ***Disabled. Specific FIPS Codes control EAS_NET device triggering (National alerts EAN/EAT override).*** *Check to enable all FIPS codes triggering of EAS_NET device.*

Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this EAS_NET Network send.
Use **Add Selected to EAS_NET List** to add selections.

Orleans,NY (03607
Genesee,NY (03603
Monroe,NY (036055
Niagara,NY (036063

Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this EAS_NET Network Forward.
Use **Add Selected to EAS_NET List** to add selections.

Genesee,NY (03603
Monroe,NY (036055
Niagara,NY (036063
New York (036000)

EAS_NET client FIPS List.
Alerts to these locations will be sent via EAS_NET to remote.

Orleans, NY (0360
New York (036000

Setup > Net Alerts > EAS_NET Client Configuration > FIPS trigger interface

All EAS codes trigger

If enabled, all EAS codes will trigger the EAS NET client interface. In the next screen shot this option is *enabled*. Set the checkbox to enable/disable EAS code filtered trigger control. If disabled, then the alert EAS code is filtered for a specific match as a way to control whether or not EAS NET is triggered. If All EAS is disabled, select EAS codes from the provided lists and add to the client EAS list. If the EAS FIPS codes of an active forwarded/originated alert match any of these EAS FIPS codes, the alert will be sent using the EAS NET client. With careful use of this feature, and with multiple clients, one One-Net can serve many different cable regions at the same time.

When you finish making changes, click ***<u>Accept Changes</u>*** *to save the configuration.*

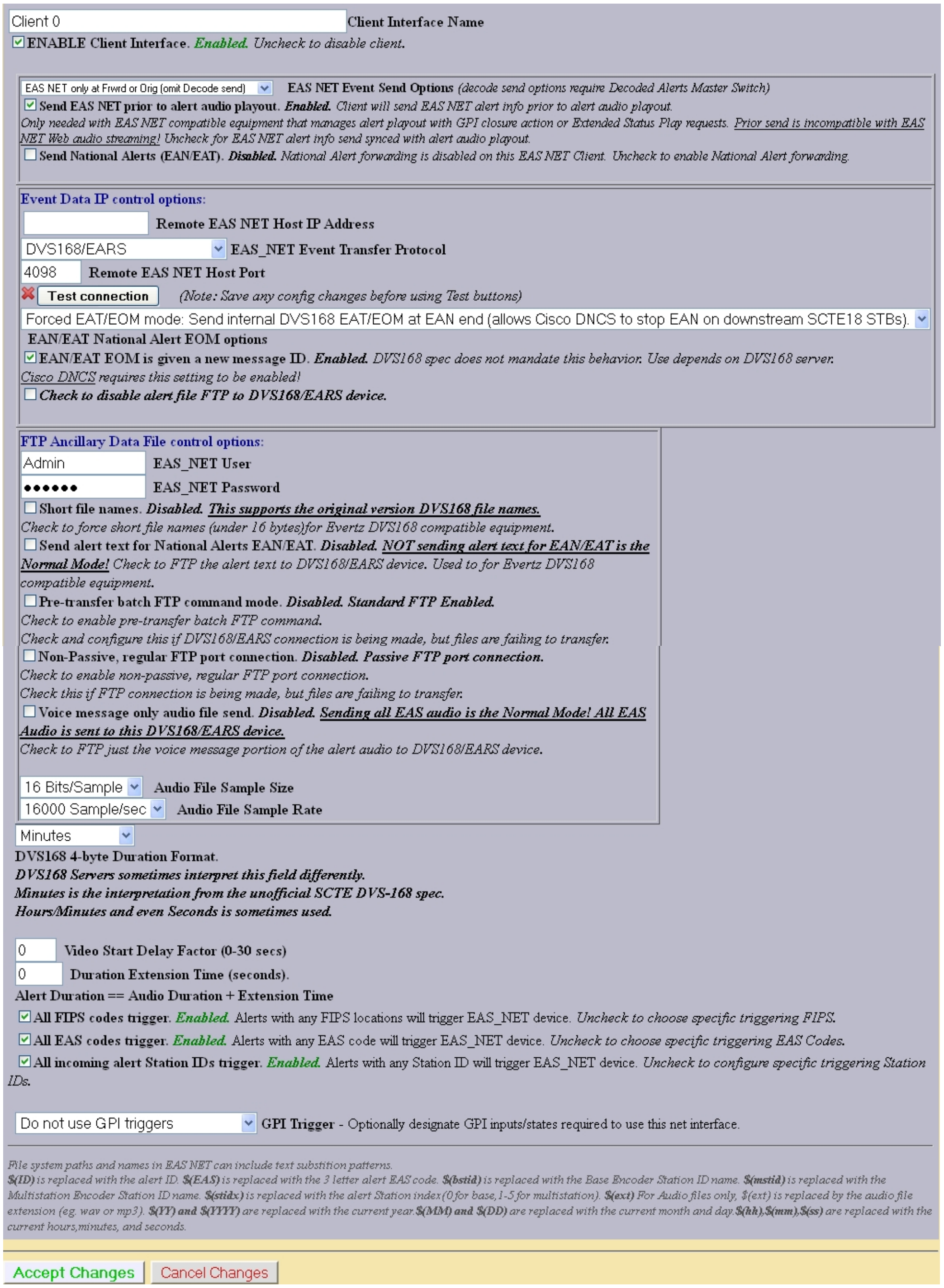
Discussion: Since EAS NET is used in conjunction with third-party management software (on the remote host), typically, configuration details will depend upon the exact third-party solution. Often instructions will be provided by this party. Configure the EAS NET client interface as required.

Discussion: **EAS NET Basic Operation**

EAS NET operates by sending optional audio, optional text translations, and an EAS event notification file from a One-Net to a remote device over a LAN or WAN. There are some differences depending upon the chosen EAS NET protocol. SSH STDIN Only does not offer sending of digital audio WAV files or text translations. DVS168, being a legacy protocol, does not send the same type of event notification data as the other protocols. For everything but DVS168, the remote host/server device is sent an event text file or ASCII data sequence that contains a set of key=value style data lines describing the EAS alert. For every protocol but SSH STDIN Only and DVS168, the text event file by default is copied into the remote host file EAS_NET_ALERT under the remote user home directory. This filename and path can be overridden when configuring the client schema file. A standard set of information fields is sent in the text file, but the actual names of the keys can be custom edited per client according to a programmable schema. Each client can be set to use the Default schema or can use a custom edited schema. The One-Net EAS NET client interface provides a schema editor to create specialized schemas.

DVS168/EARS devices

DVS168/EARS can be selected as an option on the EAS NET Event Transfer Protocol selector. See the screen shot below. Like the other EAS NET protocols, the EAS NET remote host IP address and port must be entered. This would be the address and port of the DVS168/EARS server. Standard DVS168 uses FTP to send data files, so an EAS NET FTP user and password value must also be entered for a standard client configuration. However, there is an option to disable the FTP send. This is for servers that do not support handling digital file data but can be alerted by the DVS168 event protocol. If this option is checked the FTP user and password values are not displayed or needed since the audio and video files will not be sent.



Client 0 **Client Interface Name**

☑ **ENABLE Client Interface.** *Enabled. Uncheck to disable client.*

EAS NET only at Frwrd or Orig (omit Decode send) **EAS NET Event Send Options** *(decode send options require Decoded Alerts Master Switch)*

☑ **Send EAS NET prior to alert audio playout.** ***Enabled.*** *Client will send EAS NET alert info prior to alert audio playout.*
Only needed with EAS NET compatible equipment that manages alert playout with GPI closure action or Extended Status Play requests. Prior send is incompatible with EAS NET Web audio streaming! Uncheck for EAS NET alert info send synced with alert audio playout.

☐ **Send National Alerts (EAN/EAT).** ***Disabled.*** *National Alert forwarding is disabled on this EAS NET Client. Uncheck to enable National Alert forwarding.*

Event Data IP control options:

Remote EAS NET Host IP Address

DVS168/EARS **EAS_NET Event Transfer Protocol**

4098 **Remote EAS NET Host Port**

☒ Test connection *(Note: Save any config changes before using Test buttons)*

Forced EAT/EOM mode: Send internal DVS168 EAT/EOM at EAN end (allows Cisco DNCS to stop EAN on downstream SCTE18 STBs).

EAN/EAT National Alert EOM options

☑ **EAN/EAT EOM is given a new message ID.** ***Enabled.*** *DVS168 spec does not mandate this behavior. Use depends on DVS168 server.*
Cisco DNCS requires this setting to be enabled!

☐ ***Check to disable alert file FTP to DVS168/EARS device.***

FTP Ancillary Data File control options:

Admin **EAS_NET User**

●●●●●● **EAS_NET Password**

☐ **Short file names.** ***Disabled. This supports the original version DVS168 file names.***
Check to force short file names (under 16 bytes)for Evertz DVS168 compatible equipment.

☐ **Send alert text for National Alerts EAN/EAT.** ***Disabled. NOT sending alert text for EAN/EAT is the Normal Mode!*** *Check to FTP the alert text to DVS168/EARS device. Used to for Evertz DVS168 compatible equipment.*

☐ **Pre-transfer batch FTP command mode.** ***Disabled. Standard FTP Enabled.***
Check to enable pre-transfer batch FTP command.
Check and configure this if DVS168/EARS connection is being made, but files are failing to transfer.

☐ **Non-Passive, regular FTP port connection.** ***Disabled. Passive FTP port connection.***
Check to enable non-passive, regular FTP port connection.
Check this if FTP connection is being made, but files are failing to transfer.

☐ **Voice message only audio file send.** ***Disabled. Sending all EAS audio is the Normal Mode! All EAS Audio is sent to this DVS168/EARS device.***
Check to FTP just the voice message portion of the alert audio to DVS168/EARS device.

16 Bits/Sample **Audio File Sample Size**

16000 Sample/sec **Audio File Sample Rate**

Minutes

DVS168 4-byte Duration Format.
DVS168 Servers sometimes interpret this field differently.
Minutes is the interpretation from the unofficial SCTE DVS-168 spec.
Hours/Minutes and even Seconds is sometimes used.

0 **Video Start Delay Factor (0-30 secs)**

0 **Duration Extension Time (seconds).**

Alert Duration == Audio Duration + Extension Time

☑ **All FIPS codes trigger.** *Enabled.* Alerts with any FIPS locations will trigger EAS_NET device. *Uncheck to choose specific triggering FIPS.*

☑ **All EAS codes trigger.** *Enabled.* Alerts with any EAS code will trigger EAS_NET device. *Uncheck to choose specific triggering EAS Codes.*

☑ **All incoming alert Station IDs trigger.** *Enabled.* Alerts with any Station ID will trigger EAS_NET device. *Uncheck to configure specific triggering Station IDs.*

Do not use GPI triggers **GPI Trigger** - Optionally designate GPI inputs/states required to use this net interface.

File system paths and names in EAS NET can include text substition patterns.
$(ID) *is replaced with the alert ID.* ***$(EAS)*** *is replaced with the 3 letter alert EAS code.* ***$(bstid)*** *is replaced with the Base Encoder Station ID name.* ***$(mstid)*** *is replaced with the Multistation Encoder Station ID name.* ***$(stidx)*** *is replaced with the alert Station index(0 for base, 1-5 for multistation).* ***$(ext)*** *For Audio files only, $(ext) is replaced by the audio file extension (eg. wav or mp3).* ***$(YY) and $(YYYY)*** *are replaced with the current year.* ***$(MM) and $(DD)*** *are replaced with the current month and day.* ***$(hh),$(mm),$(ss)*** *are replaced with the current hours,minutes, and seconds.*

Setup > Net Alerts > EAS NET Client Configuration - DVS168/EARS

Two other options unique to the DVS168 protocol are also provided.

1. To send just the EAS alert audio message, instead of the EAS FSK header and EOM audio and attention audio, use the provided checkbox. Before using this

option, it is important to make sure your local EAS plan allows the FSK audio to be discarded.

2. Alert duration data format. Typically, this is in minutes, but some DVS-168 interpreters have coded this differently. The selector provides two other interpretations.

The DVS168 protocol does not provide a programmable schema. For DVS168, the data schema is predefined and the schema selection is not displayed. As with the other EAS NET protocols, the Video Start Delay time, the Duration Extension time, and FIPS based net alert triggering are all configurable.

*When you finish making changes, click **Accept Changes** to save the configuration.*

DVS168/EARS operation - When a forwarded/originated EAS alert is to be sent using a DVS-168 EAS NET client, a TCP socket is temporarily opened from the One-Net to the DVS-168 remote host. If this succeeds, and the alert is a non-national alert (and FTP is enabled), a WAV file of the EAS audio and a text file of the alert details are FTP'ed to the DVS-168 remote server host. Then a control message is sent over the TCP socket that describes the alert and provides names for the data files. For non-national alerts, this is the only notification by TCP needed. For EAN and EAT national alerts, the audio and text files are not generated or sent, since EAN/EAT alert audio is live and of undetermined duration. When the alert ends, a second control message is sent over the TCP socket to signal the end of the national alert. After this, the socket connection is "torn-down". The Operation Log will log each of these actions and their success or failure.

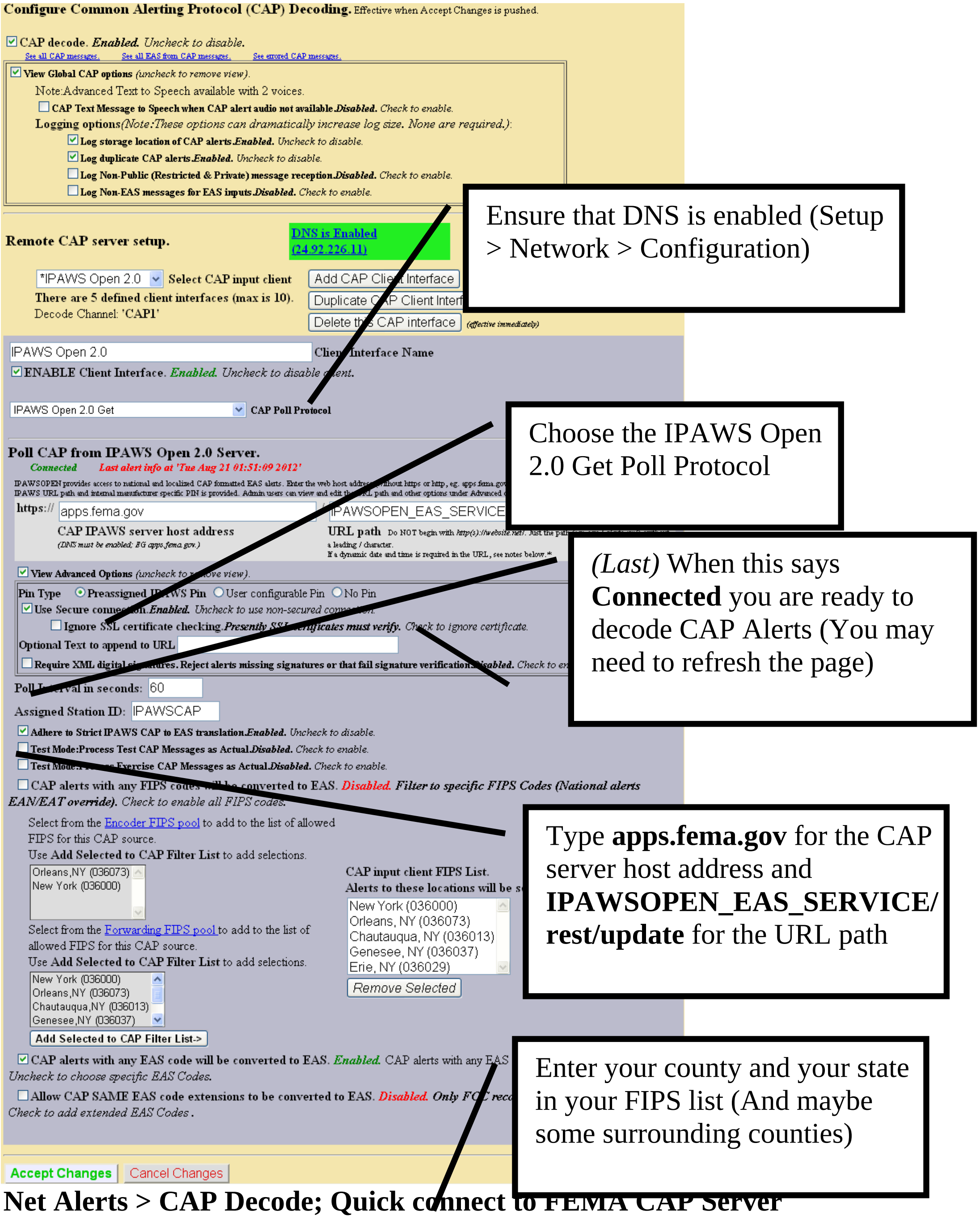
4.10.3 CAP Decode

There are two sections to configure in the CAP Decode sub-page. They are, Configure Common Alerting Protocol (CAP) Decoding and Remote CAP Server Setup.

****Quick connect to FEMA CAP Server on next page****
There is also an App-Note to help you configure your OneNet^{SE} with CAP, go to http://www.monroe-electronics.com/EAS_pages/eas_applicationnotes.html **and find the app-note that applies to interfacing with CAP.**

Quick Connect to IPAWS CAP Server

To quick connect to the FEMA CAP Server, create a new client and follow the options in the next screenshot.



Configure Common Alerting Protocol (CAP) Decoding. Effective when Accept Changes is pushed.

☑ CAP decode. ***Enabled.*** *Uncheck to disable.*

See all CAP messages. See all EAS from CAP messages. See erored CAP messages.

☑ **View Global CAP options** *(uncheck to remove view).*

Note:Advanced Text to Speech available with 2 voices.

□ **CAP Text Message to Speech when CAP alert audio not available *Disabled.*** *Check to enable.*

Logging options*(Note:These options can dramatically increase log size. None are required.)*:

☑ **Log storage location of CAP alerts *Enabled.*** *Uncheck to disable.*

☑ **Log duplicate CAP alerts *Enabled.*** *Uncheck to disable.*

□ **Log Non-Public (Restricted & Private) message reception *Disabled.*** *Check to enable.*

□ **Log Non-EAS messages for EAS inputs *Disabled.*** *Check to enable.*

Remote CAP server setup. DNS is Enabled (24.92.226.11)

*IPAWS Open 2.0 **Select CAP input client**

There are 5 defined client interfaces (max is 10).

Decode Channel: 'CAP1'

(effective immediately)

IPAWS Open 2.0 **Client Interface Name**

☑ **ENABLE Client Interface.** ***Enabled.*** *Uncheck to disable client.*

IPAWS Open 2.0 Get **CAP Poll Protocol**

Poll CAP from IPAWS Open 2.0 Server.

Connected ***Last alert info at 'Tue Aug 21 01:51:09 2012'***

IPAWSOPEN provides access to national and localized CAP formatted EAS alerts. Enter the web host address without https or http, eg. apps.fema.gov
IPAWS URL path and internal manufacturer specific PIN is provided. Admin users can view and edit the URL path and other options under Advanced

https:// apps.fema.gov / IPAWSOPEN_EAS_SERVICE

CAP IPAWS server host address
(DNS must be enabled; EG apps.fema.gov.)

URL path Do NOT begin with *http(s)://website.net/*. Just the path
a leading / character.
If a dynamic date and time is required in the URL, see notes below.*

☑ **View Advanced Options** *(uncheck to remove view).*

Pin Type ● Preassigned IPAWS Pin ○ User configurable Pin ○ No Pin

☑ **Use Secure connection.*Enabled.*** *Uncheck to use non-secured connection.*

□ **Ignore SSL certificate checking.*Presently SSL certificates must verify.*** *Check to ignore certificate.*

Optional Text to append to URL

□ **Require XML digital signatures. Reject alerts missing signatures or that fail signature verification.*Disabled.*** *Check to en*

Poll Interval in seconds: 60

Assigned Station ID: IPAWSCAP

☑ **Adhere to Strict IPAWS CAP to EAS translation.*Enabled.*** *Uncheck to disable.*

□ **Test Mode:Process Test CAP Messages as Actual.*Disabled.*** *Check to enable.*

□ **Test Mode:Process Exercise CAP Messages as Actual.*Disabled.*** *Check to enable.*

□ **CAP alerts with any FIPS codes will be converted to EAS.** ***Disabled.*** ***Filter to specific FIPS Codes (National alerts EAN/EAT override).*** *Check to enable all FIPS codes.*

Select from the Encoder FIPS pool to add to the list of allowed FIPS for this CAP source.
Use **Add Selected to CAP Filter List** to add selections.

Orleans,NY (036073)
New York (036000)

Select from the Forwarding FIPS pool to add to the list of allowed FIPS for this CAP source.
Use **Add Selected to CAP Filter List** to add selections.

New York (036000)
Orleans,NY (036073)
Chautauqua,NY (036013)
Genesee,NY (036037)

CAP input client FIPS List.
Alerts to these locations will be s

New York (036000)
Orleans, NY (036073)
Chautauqua, NY (036013)
Genesee, NY (036037)
Erie, NY (036029)

☑ **CAP alerts with any EAS code will be converted to EAS.** ***Enabled.*** CAP alerts with any EAS
Uncheck to choose specific EAS Codes.

□ **Allow CAP SAME EAS code extensions to be converted to EAS.** ***Disabled.*** ***Only FCC reco***
Check to add extended EAS Codes .

Ensure that DNS is enabled (Setup > Network > Configuration)

Choose the IPAWS Open 2.0 Get Poll Protocol

(Last) When this says **Connected** you are ready to decode CAP Alerts (You may need to refresh the page)

Type **apps.fema.gov** for the CAP server host address and **IPAWSOPEN_EAS_SERVICE/ rest/update** for the URL path

Enter your county and your state in your FIPS list (And maybe some surrounding counties)

Setup > Net Alerts > CAP Decode; Quick connect to FEMA CAP Server

Configure Common Alerting Protocol (CAP) Decoding

CAP Decode

This toggle enables or disables CAP decoding for the One-Net. Set it to enable to see all of the available options for CAP Decoding.

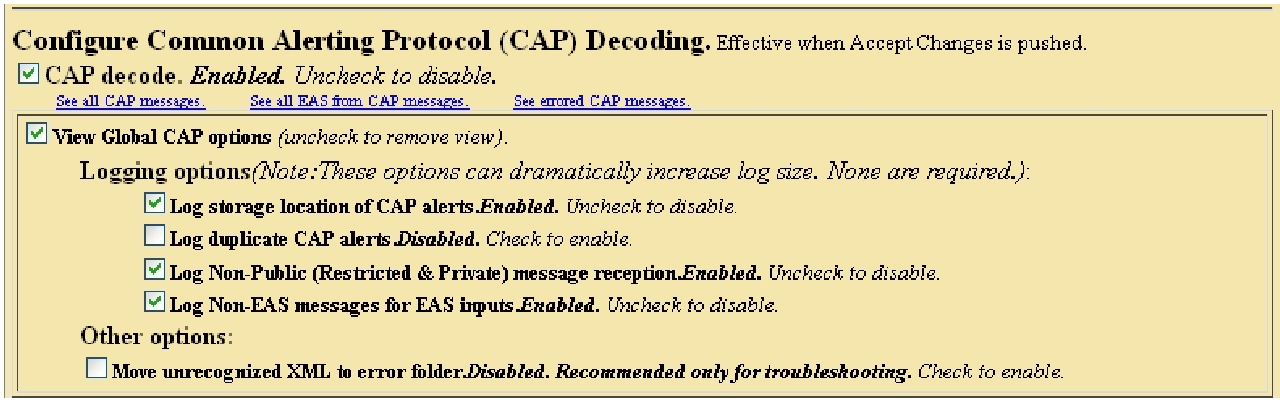
Global CAP Options

The two advanced text to speech options (David and Allison) are available after a purchase of the License Key (See the bottom of Setup > Server > Main/License). The download for the voice is available online, but still requires activation. If the advanced text to speech options are not purchased, a basic text to speech engine will be used.

CAP Text Message to Speech when CAP alert audio not available
Check this toggle to enable the text to speech option when there is no audio file sent with the CAP Alert.

Logging Options
These options are available to keep control over what CAP Alerts make it into the log of Decoded alerts.

Quick Connect to IPAWS CAP Server
To quick connect to the FEMA CAP Server, create a new client and follow the options in the screen shot below.



Configure Common Alerting Protocol (CAP) Decoding. Effective when Accept Changes is pushed.
☑ CAP decode. ***Enabled.*** *Uncheck to disable.*
See all CAP messages. See all EAS from CAP messages. See errored CAP messages.

☑ **View Global CAP options** *(uncheck to remove view).*

Logging options*(Note:These options can dramatically increase log size. None are required.):*

☑ **Log storage location of CAP alerts*Enabled.*** *Uncheck to disable.*
☐ **Log duplicate CAP alerts*Disabled.*** *Check to enable.*
☑ **Log Non-Public (Restricted & Private) message reception*Enabled.*** *Uncheck to disable.*
☑ **Log Non-EAS messages for EAS inputs*Enabled.*** *Uncheck to disable.*

Other options:

☐ **Move unrecognized XML to error folder*Disabled. Recommended only for troubleshooting.*** *Check to enable.*

Setup > Net Alerts > CAP Decode; Quick connect to FEMA CAP Server

Setup > Net Alerts > CAP Decoding; Configure Common Alerting Protocol (CAP) Decoding

Remote CAP Server Setup

Select CAP Input Client
This Drop-down menu allows you to choose which CAP client you are configuring. The default clients are, CAP PUSH INPUT and HTTP Get Client1.

The CAP PUSH INPUT is available if you want to Receive CAP Alerts from a remote push server. Though this option is available, it is not used often. If it were used, FEMA would have to know all of the specific IP addresses that it was pushing CAP Alerts to. Because FEMA does not know your One-Net’s IP Address location, it is not going to push an alert to you this way.

For the HTTP Get Client1 default option, you can choose between a few CAP Polling Protocols. Choose between HTTP, HTTPS, SSH and the IPAWS Open 2.0 option.

Add, Duplicate and Delete this CAP Interface
These buttons add a new CAP Client Interface, Duplicate the one that is currently being edited, or deletes the one that is currently being edited.

Client Interface Name
Choose a name for the specific Client Interface that you will be configuring.

ENABLE Client Interface
Check this box in order to enable the configured or new client to become active to EAS NET CAP Alerts.

CAP Poll Protocol
Choose between HTTP, HTTPS, SSH and the IPAWS Open 2.0 option.

Poll CAP from …

- **WWW HTTP Get (Web URL)**
  Use this option to poll from a WWW Server (CAP XML, EDXL-DE, NOAA Atom, RSS pages).

- **WWW Secure HTTPS Get**
  Use this option to poll a WWW HTTPS Secured Server (CAP XML, EDXL-DE, Atom, RSS)

- **Secure Shell Get**
  Use this option to poll a SSH Server (CAP XML, EDXL-DE, Atom, RSS)

- **IPAWS Open 2.0 Get**
  IPAWSOPEN provides access to national and localized CAP formatted EAS alerts. Enter the web host address (without https or http, e.g. apps.fema.gov and you must have DNS enabled!). A default IPAWS URL path and internal manufacturer specific PIN is provided. Admin users can view and edit the URL path and other options under advanced option setup.

Under each of those polling options are very similar credentials that need to be filled out in order to connect to the servers. The following list will show most of those options, they may or may not pertain to all of the polling options.

CAP Server Host Address
This is the address of the server that you want to receive CAP Alerts from. In order to use a URL, a DNS connection must be enabled. Go to Setup > Network > Configuration to change your DNS options.

URL path portion and/or remote path and file name
Put the URL path of the server that you want to receive CAP Alerts from.

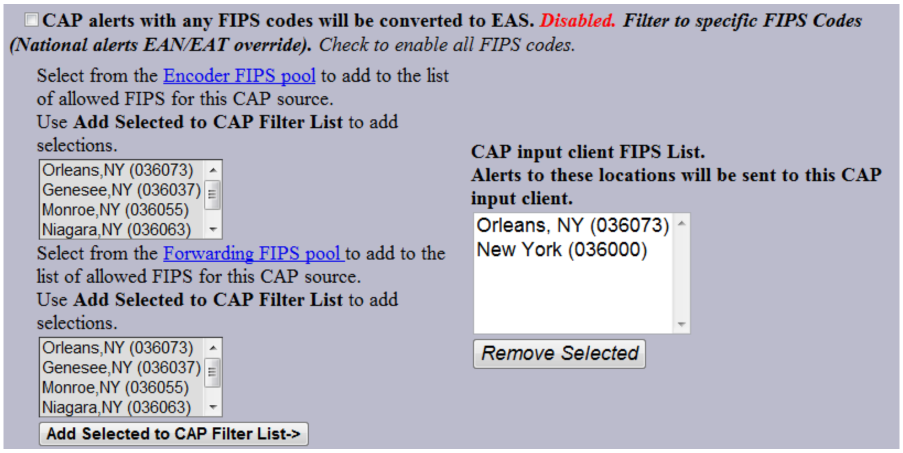
Poll Interval in Seconds
This is the number of seconds that your One-Net will take before it checks for another CAP Alert.

Assigned Station ID

Use this value to give the server that you are receiving CAP Alerts from an ID that will appear on the log of Decoded alerts.

CAP alerts with any FIPS codes will be converted to EAS

This option, when enabled, will convert CAP Alerts that are sent to any FIPS location to EAS on your One-Net. It is recommended that this option is ***DISABLED*** because most often, you don't need to know all of the cap alerts that are going on around the country (There are a lot). When this option disabled, enter in the FIPS locations that you want to receive CAP alerts for. The FCC requires you to receive CAP Alerts for your county, and your entire state (Not every specific county in the state, but the option that gives you the entire state FIPS code).



□ **CAP alerts with any FIPS codes will be converted to EAS.** ***Disabled. Filter to specific FIPS Codes (National alerts EAN/EAT override).*** *Check to enable all FIPS codes.*

Select from the Encoder FIPS pool to add to the list of allowed FIPS for this CAP source.
Use **Add Selected to CAP Filter List** to add selections.

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)

Select from the Forwarding FIPS pool to add to the list of allowed FIPS for this CAP source.
Use **Add Selected to CAP Filter List** to add selections.

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)

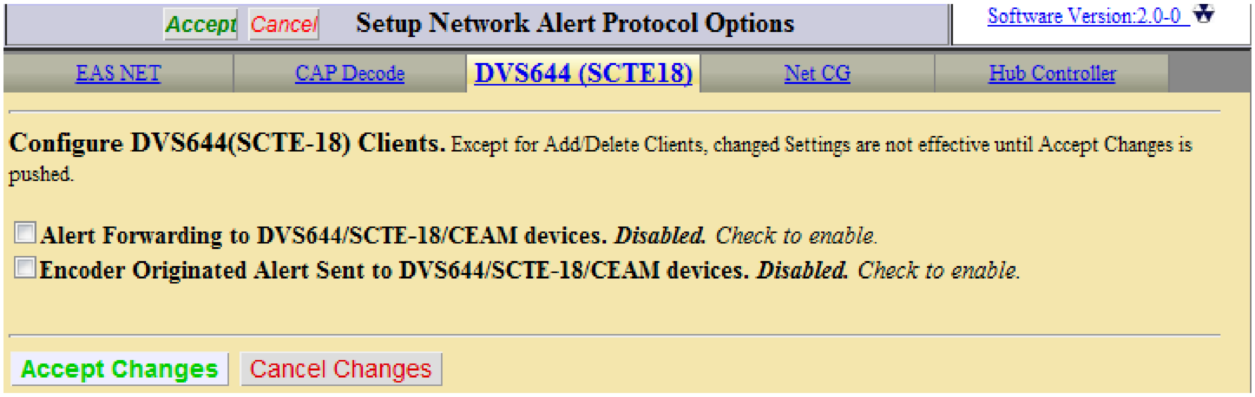
CAP input client FIPS List.
Alerts to these locations will be sent to this CAP input client.

Orleans, NY (036073)
New York (036000)

Setup > Net Alerts > CAP Decode; FIPS Codes

4.10.4 DVS644 (SCTE18)

If DVS-644 (SCTE 18) is available on the One-Net^{SE}, use the Alert Forwarding and/or the Encoder Alert Send to DVS644 device toggles to enable this protocol for forwarded alerts and/or originated alerts. At least one of these toggles must be enabled to allow editing. Accept Changes must be pressed before changes to these toggles are saved.



Configure DVS644(SCTE-18) Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.

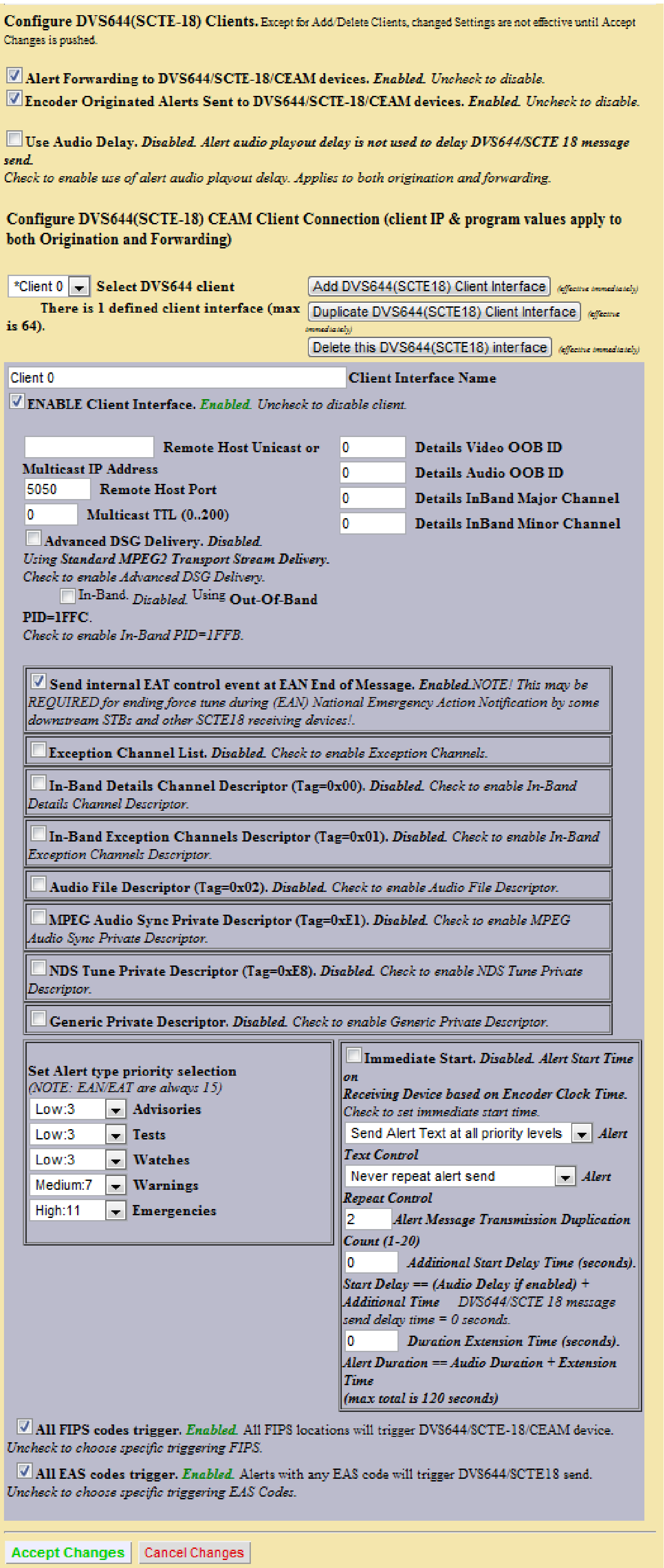
☐ **Alert Forwarding to DVS644/SCTE-18/CEAM devices.** ***Disabled.*** *Check to enable.*

☐ **Encoder Originated Alert Sent to DVS644/SCTE-18/CEAM devices.** ***Disabled.*** *Check to enable.*

Setup > Net Alerts > DVS644 (SCTE18)

Alert Forwarding to DVS644/SCTE-18/CEAM devices.
Placing a check in this box will allow Alerts that are received from a Broadcaster to be forwarded through the One-Net^{SE} and sent out using the DVS644 protocol.

Encoder Alert Send to DVS644/SCTE-18/CEAM devices.
Placing a check in this box will allow Alerts that are originated by the One-Net^{SE} to be sent out using the DVS644 protocol.



Configure DVS644(SCTE-18) Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.

☑ **Alert Forwarding to DVS644/SCTE-18/CEAM devices.** *Enabled. Uncheck to disable.*
☑ **Encoder Originated Alerts Sent to DVS644/SCTE-18/CEAM devices.** *Enabled. Uncheck to disable.*

☐ **Use Audio Delay.** *Disabled. **Alert audio playout delay is not used to delay DVS644/SCTE 18 message send.***
Check to enable use of alert audio playout delay. Applies to both origination and forwarding.

Configure DVS644(SCTE-18) CEAM Client Connection (client IP & program values apply to both Origination and Forwarding)

*Client 0 ▾ **Select DVS644 client**
There is 1 defined client interface (max is 64).

Add DVS644(SCTE18) Client Interface *(effective immediately)*
Duplicate DVS644(SCTE18) Client Interface *(effective immediately)*
Delete this DVS644(SCTE18) interface *(effective immediately)*

Client 0 **Client Interface Name**
☑ **ENABLE Client Interface.** *Enabled. Uncheck to disable client.*

Remote Host Unicast or Multicast IP Address
5050 **Remote Host Port**
0 **Multicast TTL (0..200)**
☐ **Advanced DSG Delivery.** *Disabled.*
Using Standard MPEG2 Transport Stream Delivery.
Check to enable Advanced DSG Delivery.
☐ In-Band. *Disabled.* Using **Out-Of-Band PID=1FFC.**
Check to enable In-Band PID=1FFB.

0 **Details Video OOB ID**
0 **Details Audio OOB ID**
0 **Details InBand Major Channel**
0 **Details InBand Minor Channel**

☑ **Send internal EAT control event at EAN End of Message.** *Enabled.NOTE! This may be REQUIRED for ending force tune during (EAN) National Emergency Action Notification by some downstream STBs and other SCTE18 receiving devices!.*

☐ **Exception Channel List.** *Disabled. Check to enable Exception Channels.*

☐ **In-Band Details Channel Descriptor (Tag=0x00).** *Disabled. Check to enable In-Band Details Channel Descriptor.*

☐ **In-Band Exception Channels Descriptor (Tag=0x01).** *Disabled. Check to enable In-Band Exception Channels Descriptor.*

☐ **Audio File Descriptor (Tag=0x02).** *Disabled. Check to enable Audio File Descriptor.*

☐ **MPEG Audio Sync Private Descriptor (Tag=0xE1).** *Disabled. Check to enable MPEG Audio Sync Private Descriptor.*

☐ **NDS Tune Private Descriptor (Tag=0xE8).** *Disabled. Check to enable NDS Tune Private Descriptor.*

☐ **Generic Private Descriptor.** *Disabled. Check to enable Generic Private Descriptor.*

Set Alert type priority selection
(NOTE: EAN/EAT are always 15)

Low:3 ▾	**Advisories**
Low:3 ▾	**Tests**
Low:3 ▾	**Watches**
Medium:7 ▾	**Warnings**
High:11 ▾	**Emergencies**

☐ **Immediate Start.** *Disabled. Alert Start Time on Receiving Device based on Encoder Clock Time.*
Check to set immediate start time.
Send Alert Text at all priority levels ▾ *Alert Text Control*
Never repeat alert send ▾ *Alert Repeat Control*
2 *Alert Message Transmission Duplication Count (1-20)*
0 *Additional Start Delay Time (seconds).*
Start Delay == (Audio Delay if enabled) + Additional Time   DVS644/SCTE 18 message send delay time = 0 seconds.
0 *Duration Extension Time (seconds).*
Alert Duration == Audio Duration + Extension Time
(max total is 120 seconds)

☑ **All FIPS codes trigger.** *Enabled.* All FIPS locations will trigger DVS644/SCTE-18/CEAM device.
Uncheck to choose specific triggering FIPS.

☑ **All EAS codes trigger.** *Enabled.* Alerts with any EAS code will trigger DVS644/SCTE18 send.
Uncheck to choose specific triggering EAS Codes.

Setup > Net Alerts > DVS644 (SCTE18)

Once enabled, you can create configurations for up to 64 DVS644 (SCTE-18) CEAM (Cable Emergency Alert Message) clients.

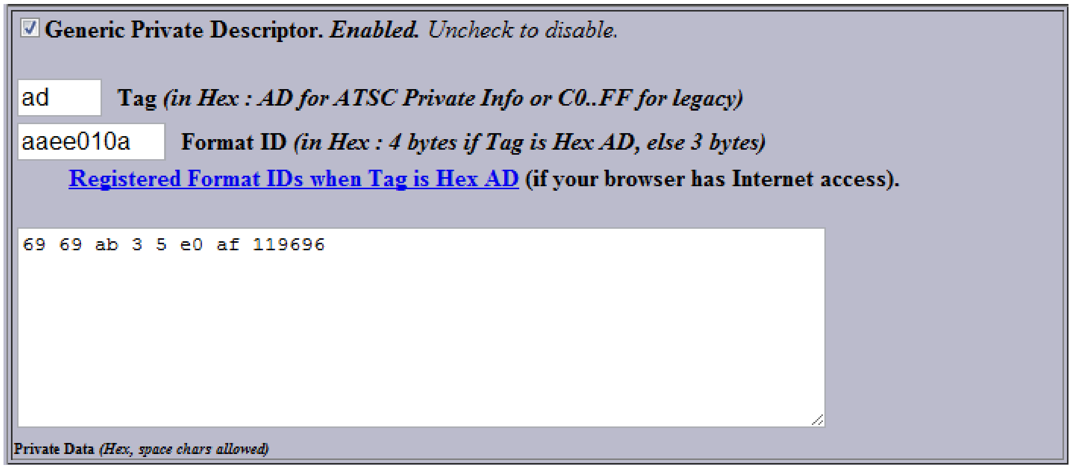
Each client can be independently enabled and disabled, allowing an easy way to manage EAS for multiple regions. If no client configurations exist, or if you want a new one, click the Add DVS644 Client Interface button to create a new interface configuration. Careful, client configuration addition and deletion is immediate and cannot be canceled. To edit an existing client interface, select from the provided pull down menu and edit the provided fields. To delete a client configuration, select the client and click on Delete this DVS644 Client Interface. To duplicate a client interface, select the client and click on Duplicate this DVS644 Client Interface.

During alert processing, the Operation Log will log the success or failure of the DVS644 forwarding/origination action per client.

Note: Every client configuration is used for whichever action of alert forwarding and alert origination currently enabled.

Various information fields must be configured to identify and correctly communicate to the DVS-644 client. The most basic fields are the IP address and port. Enter these according to the specific DVS-644 client. Often this is an MPEG-2 multiplexor, such as a Stream Encryptor Modulator, serving a defined set of digital cable channels. Then decide if In-Band or Out-of-Band (OOB) communication will be used and select the checkbox appropriately. Based upon whether In-Band or Out-of-Band is chosen for the client, set the Details Major/Minor number or the Details OOB channel. This details channel is where the highest priority force tune alerts are sent. EAN/EAT will always cause a force tune to this channel. By using the **Alert Type Priority Selection** interface, other EAS alert codes can have the associated priority number configured based upon a severity rating per client. DVS644/SCTE 18 provides for 16 priority values, however reserved uses for most values mean that in practice, priority values are 0, 3, 7, 11 and 15, with 15 being the highest priority alerts. The priority of 0 has a special meaning. An alert sent with 0 priority will establish a new set-top box or TV sequence number. The sequence number is incremented (modulo 32) whenever an alert is sent with updated information. The One-Net^{SE} supports this reset mode by allowing an alert to be set to 0 priority. This setting should only be used for one alert, and then changed to 1-15. There is also a field to extend the alert duration past the default One-Net^{SE} audio duration. Keep in mind that the maximum allowed time for a DVS644/SCTE 18 message is 120 seconds. The One-Net^{SE} also provides an interface to configure channel exceptions as needed. These are channels that will ignore the alert. The interface is shown enabled in the illustration above. It is enabled/disabled using a checkbox toggle. Another useful feature the One-Net^{SE} provides is an interface for configuring and sending a private descriptor field. Select the Generic Private Descriptor toggle to enable and then configure the three provided fields.

If the IP target is a multicasting router, make sure to enter a number for the Multicast TTL field that describes the maximum number of routing jumps that will be made before the target clients are reached.



☑ **Generic Private Descriptor.** *Enabled. Uncheck to disable.*

ad **Tag** *(in Hex : AD for ATSC Private Info or C0..FF for legacy)*

aaee010a **Format ID** *(in Hex : 4 bytes if Tag is Hex AD, else 3 bytes)*

Registered Format IDs when Tag is Hex AD **(if your browser has Internet access).**

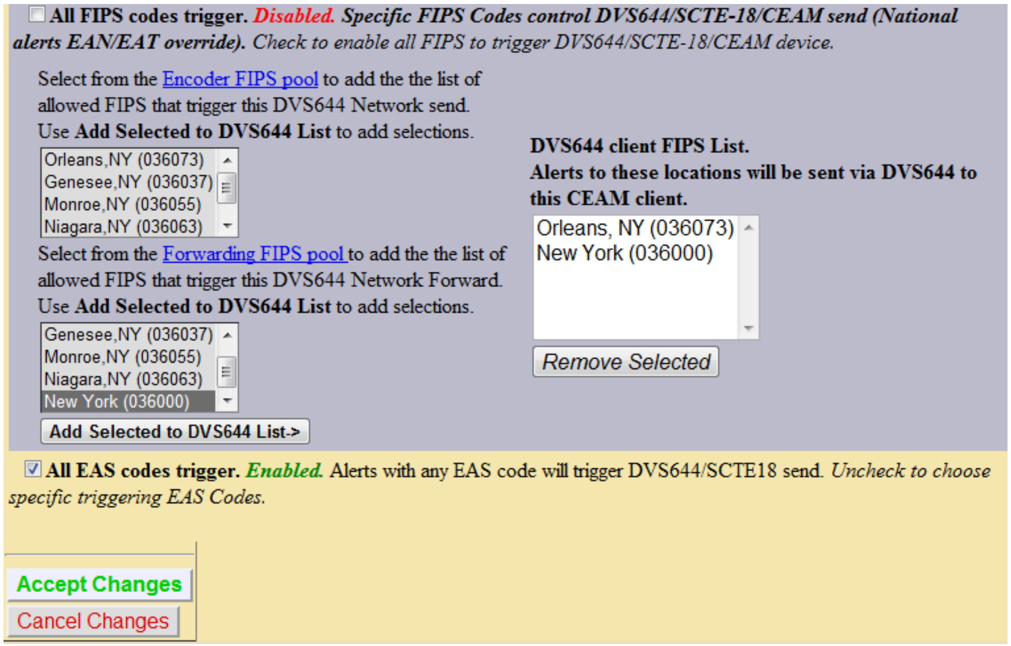
```
69 69 ab 3 5 e0 af 119696
```

Private Data *(Hex, space chars allowed)*

Setup > Net Alerts > DVS644: Generic Private Descriptor

Alerts for specific FIPS areas and specific EAS Codes can also be filtered before DVS644 is triggered. See the screenshot below. Set the checkbox to enable/disable FIPS filtered trigger control. If enabled, select FIPS codes from the provided lists and add to the client FIPS list. If any of these FIPS are included in the incoming active forwarded/originated alert, the alert will be sent to this DVS-644 client. With careful use of this feature, and with multiple clients, one One-Net^{SE} can serve many different cable regions at the same time.

EAS Code filtering can be programmed using the same method as the FIPS code filtering.



□ **All FIPS codes trigger.** *Disabled. Specific FIPS Codes control DVS644/SCTE-18/CEAM send (National alerts EAN/EAT override). Check to enable all FIPS to trigger DVS644/SCTE-18/CEAM device.*

Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this DVS644 Network send. Use **Add Selected to DVS644 List** to add selections.

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)

Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this DVS644 Network Forward. Use **Add Selected to DVS644 List** to add selections.

Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)
New York (036000)

DVS644 client FIPS List.
Alerts to these locations will be sent via DVS644 to this CEAM client.

Orleans, NY (036073)
New York (036000)

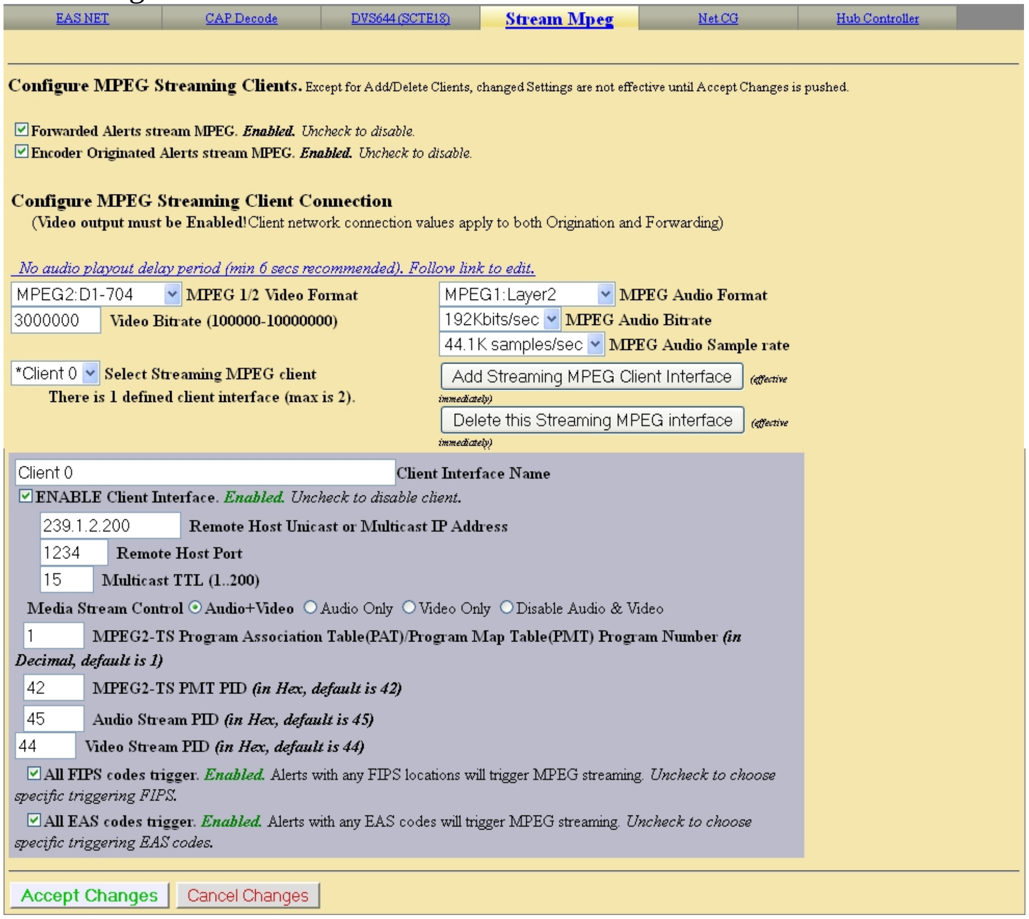
☑ **All EAS codes trigger.** *Enabled.* Alerts with any EAS code will trigger DVS644/SCTE18 send. *Uncheck to choose specific triggering EAS Codes.*

Setup > Net Alerts > DVS644: FIPS code filtering

When done, click on the Accept Changes button to save the configuration.

4.10.5 Stream MPEG

If Streaming MPEG hardware/software is available on the One-NetSE, a tabbed page will display under Setup > Net Alerts that allows configuration of up to two client targets. As in the other Net Alert pages, use the Alert Forwarding and/or the Encoder Alert Stream toggles to enable/disable the use of streaming MPEG clients when alerts are forwarded and/or originated.



Configure MPEG Streaming Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.

☑ Forwarded Alerts stream MPEG. ***Enabled.*** *Uncheck to disable.*
☑ Encoder Originated Alerts stream MPEG. ***Enabled.*** *Uncheck to disable.*

Configure MPEG Streaming Client Connection
(**Video output must be Enabled!** Client network connection values apply to both Origination and Forwarding)

No audio playout delay period (min 6 secs recommended). Follow link to edit.

MPEG2:D1-704 **MPEG 1/2 Video Format**
3000000 **Video Bitrate (100000-10000000)**
MPEG1:Layer2 **MPEG Audio Format**
192Kbits/sec **MPEG Audio Bitrate**
44.1K samples/sec **MPEG Audio Sample rate**

*Client 0 **Select Streaming MPEG client**
There is 1 defined client interface (max is 2).

Add Streaming MPEG Client Interface *(effective immediately)*
Delete this Streaming MPEG interface *(effective immediately)*

Client 0 **Client Interface Name**
☑ **ENABLE Client Interface.** ***Enabled.*** *Uncheck to disable client.*
239.1.2.200 **Remote Host Unicast or Multicast IP Address**
1234 **Remote Host Port**
15 **Multicast TTL (1..200)**
Media Stream Control ● Audio+Video ○ Audio Only ○ Video Only ○ Disable Audio & Video
1 **MPEG2-TS Program Association Table(PAT)/Program Map Table(PMT) Program Number *(in Decimal, default is 1)***
42 **MPEG2-TS PMT PID *(in Hex, default is 42)***
45 **Audio Stream PID *(in Hex, default is 45)***
44 **Video Stream PID *(in Hex, default is 44)***
☑ **All FIPS codes trigger.** ***Enabled.*** Alerts with any FIPS locations will trigger MPEG streaming. *Uncheck to choose specific triggering FIPS.*
☑ **All EAS codes trigger.** ***Enabled.*** Alerts with any EAS codes will trigger MPEG streaming. *Uncheck to choose specific triggering EAS codes.*

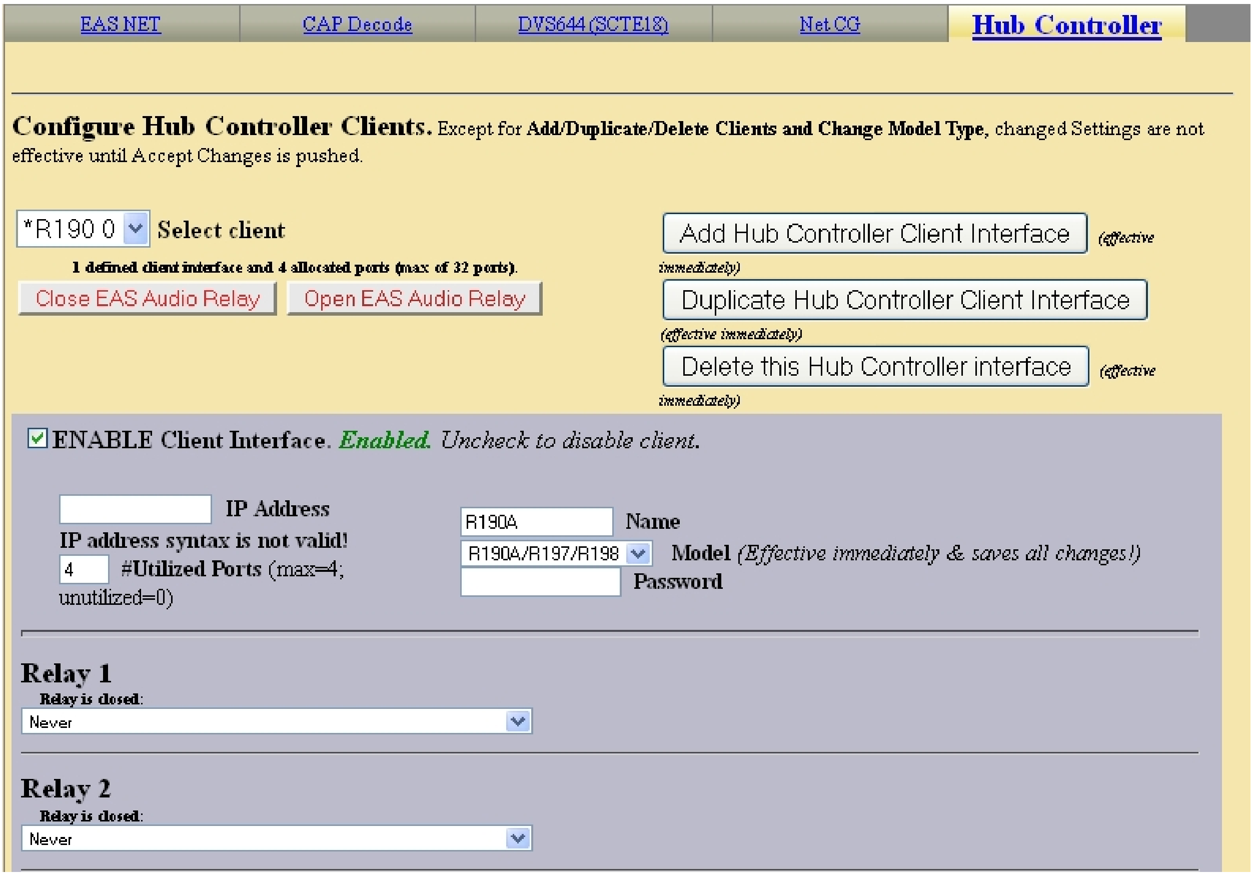
Accept Changes Cancel Changes

Addition/deletion, configuration, and enable/disable for each client interface is handled just like the other Net Alert interfaces described above. Unlike those interfaces, there are a few global settings that affect all Streaming clients. These control the video/audio format and encoding bitrate of the stream (from the hardware). The user can also program if they want Audio/Video, Audio only, or Video only being encoded. To account for the latency of starting up stream encoding and actually streaming, a delay of a few seconds is needed before audio is played for a net forwarded/originated alert. Audio delay status and a link to the configuration field for audio delay is provided.

Streaming MPEG requires very few configuration fields. A unicast or multicast IP address must be set, along with a port. The Multicast TTL value must be set high enough to insure the multicast data is sent past all the LAN routers between the One-Net^{SE} and the destinations. Also, as with the EAS NET and DVS644 interfaces, FIPS and EAS code based triggering is supported per client.

4.10.6 Hub Controller (R190 and R190A)

The One-Net^{SE} can be used in conjunction with our Hub Controller the model R190 and the newer R190A for remote hub switching if local access channels are to be overridden during EAS alerts. This is accomplished through this LAN controlled device that has four independently controlled relays. Each relay can be programmed to activate by a choice of three triggers. In addition to the three triggers it can be setup to filter its activation by FIPS code(s) and EAS code(s). The One-Net^{SE} can control up to 8 of these hub controllers.



Configure Hub Controller Clients. Except for **Add/Duplicate/Delete Clients and Change Model Type**, changed Settings are not effective until Accept Changes is pushed.

*R190 0 **Select client**

1 defined client interface and 4 allocated ports (max of 32 ports).

☑ ENABLE Client Interface. ***Enabled.*** *Uncheck to disable client.*

IP Address

IP address syntax is not valid!

4 **#Utilized Ports** (max=4; unutilized=0)

R190A **Name**

R190A/R197/R198 **Model** *(Effective immediately & saves all changes!)*

Password

Relay 1

Relay is closed:

Never

Relay 2

Relay is closed:

Never

Setup > Net Alerts > Hub Controller

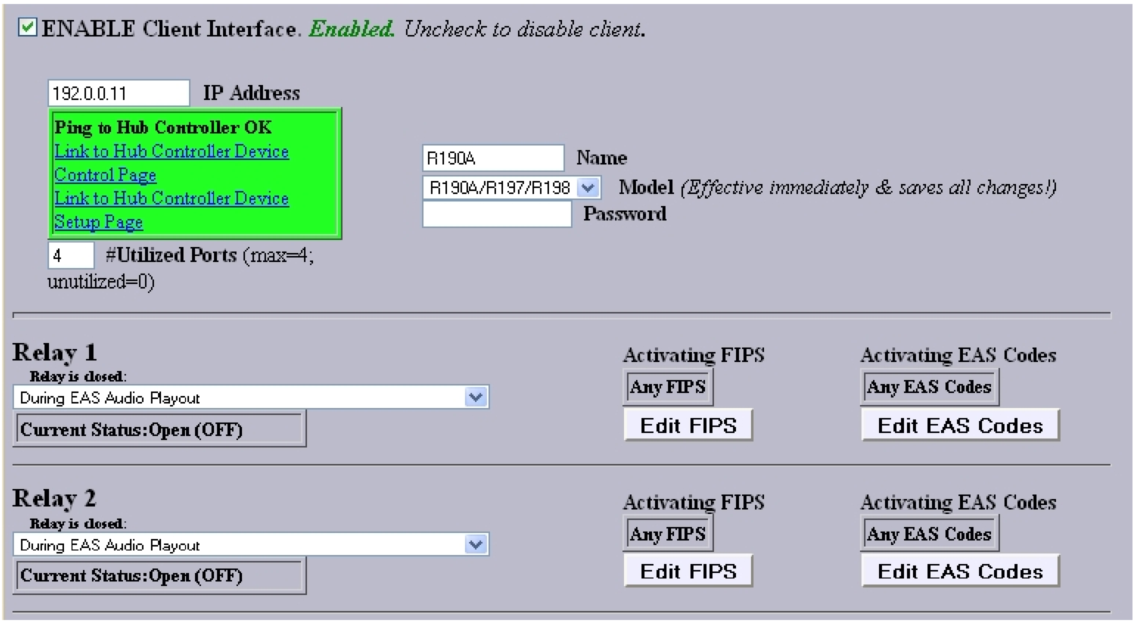
Note: Before enabling the Hub Controller, THE R190A MUST BE SET TO AN ADDRESS THAT IS WITHIN YOUR INTERNAL LAN.

Follow the procedure included with the Hub Controller R190A for details.

Enter the new address for the R190A as shown in the following screen and enable the client by placing a check mark in the box. The One-Net^{SE} will attempt to ping the R190A and display the status. Verify that the status is OK.

You can also program the password if desired.

Select the condition to close each relay that is required. Once that is selected the Activating FIPS and Activating EAS Codes boxes will be displayed. The default setting is “Any FIPS” and “Any EAS Codes” which triggers the relay when an alert is detected.



☑ ENABLE Client Interface. *Enabled. Uncheck to disable client.*

192.0.0.11 IP Address

Ping to Hub Controller OK
Link to Hub Controller Device Control Page
Link to Hub Controller Device Setup Page

4 #Utilized Ports (max=4; unutilized=0)

R190A Name

R190A/R197/R198 Model *(Effective immediately & saves all changes!)*

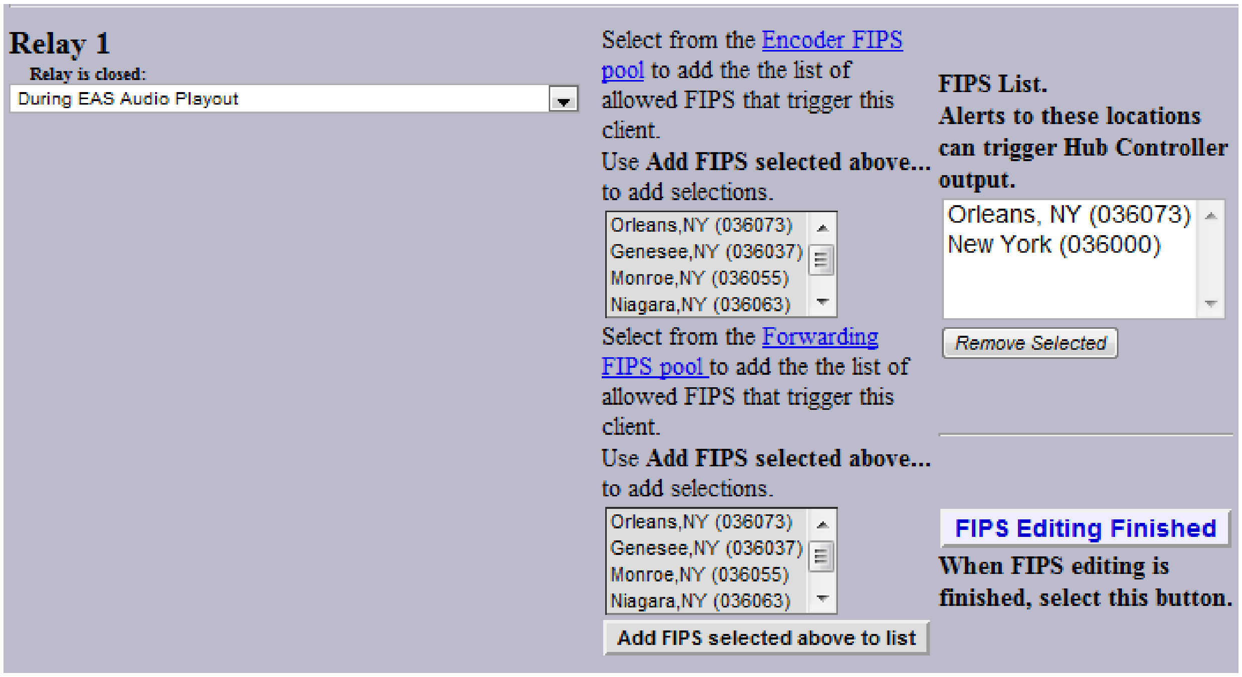
Password

Relay 1
Relay is closed: During EAS Audio Playout
Current Status:Open (OFF)
Activating FIPS: Any FIPS
Activating EAS Codes: Any EAS Codes

Relay 2
Relay is closed: During EAS Audio Playout
Current Status:Open (OFF)
Activating FIPS: Any FIPS
Activating EAS Codes: Any EAS Codes

Setup > Net Alerts > Hub Controller: FIPS and EAS Codes

Relay activation can be programmed so that they only close when Alerts for specific FIPS areas or EAS codes are present. Click on the “Edit FIPS” button to select FIPS codes from the FIPS pools. When the desired FIPS codes are selected click the “Add FIPS selected above to the list” and they will be added to the FIPS list to the right. When finished, click on the “FIPS Editing Finished” button. Repeat this step for all of the required relays. The same process is used for editing the activating EAS codes.



Relay 1
Relay is closed: During EAS Audio Playout

Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this client.
Use **Add FIPS selected above...** to add selections.

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)

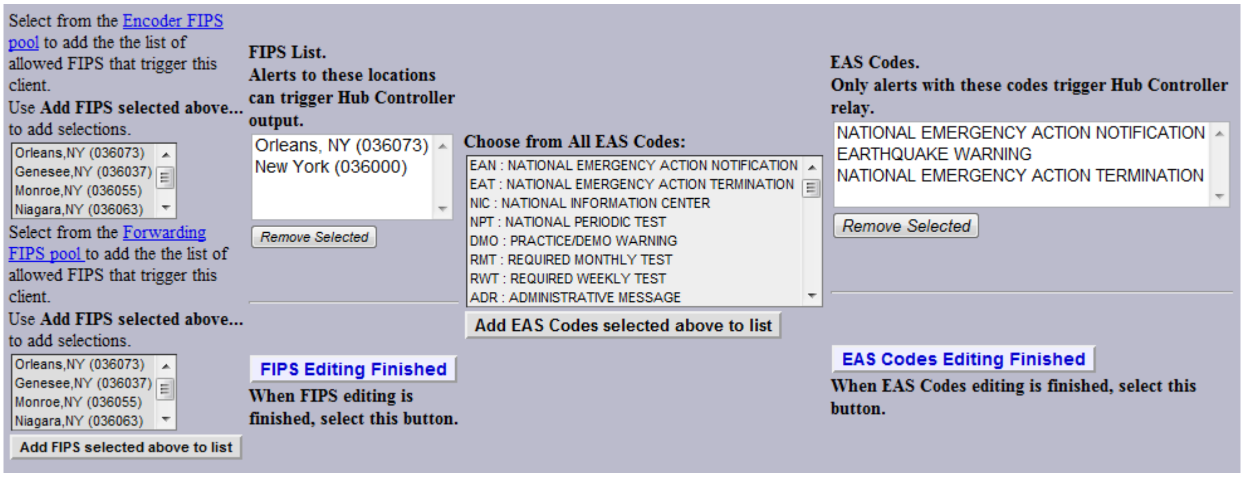
Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this client.
Use **Add FIPS selected above...** to add selections.

Orleans,NY (036073)
Genesee,NY (036037)
Monroe,NY (036055)
Niagara,NY (036063)

FIPS List.
Alerts to these locations can trigger Hub Controller output.

Orleans, NY (036073)
New York (036000)

When FIPS editing is finished, select this button.



Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this client.

Use **Add FIPS selected above...** to add selections.

Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this client.

Use **Add FIPS selected above...** to add selections.

FIPS List.

Alerts to these locations can trigger Hub Controller output.

Orleans, NY (036073)
New York (036000)

When FIPS editing is finished, select this button.

Choose from All EAS Codes:

EAN : NATIONAL EMERGENCY ACTION NOTIFICATION
EAT : NATIONAL EMERGENCY ACTION TERMINATION
NIC : NATIONAL INFORMATION CENTER
NPT : NATIONAL PERIODIC TEST
DMO : PRACTICE/DEMO WARNING
RMT : REQUIRED MONTHLY TEST
RWT : REQUIRED WEEKLY TEST
ADR : ADMINISTRATIVE MESSAGE
Add EAS Codes selected above to list

EAS Codes.

Only alerts with these codes trigger Hub Controller relay.

NATIONAL EMERGENCY ACTION NOTIFICATION
EARTHQUAKE WARNING
NATIONAL EMERGENCY ACTION TERMINATION

When EAS Codes editing is finished, select this button.

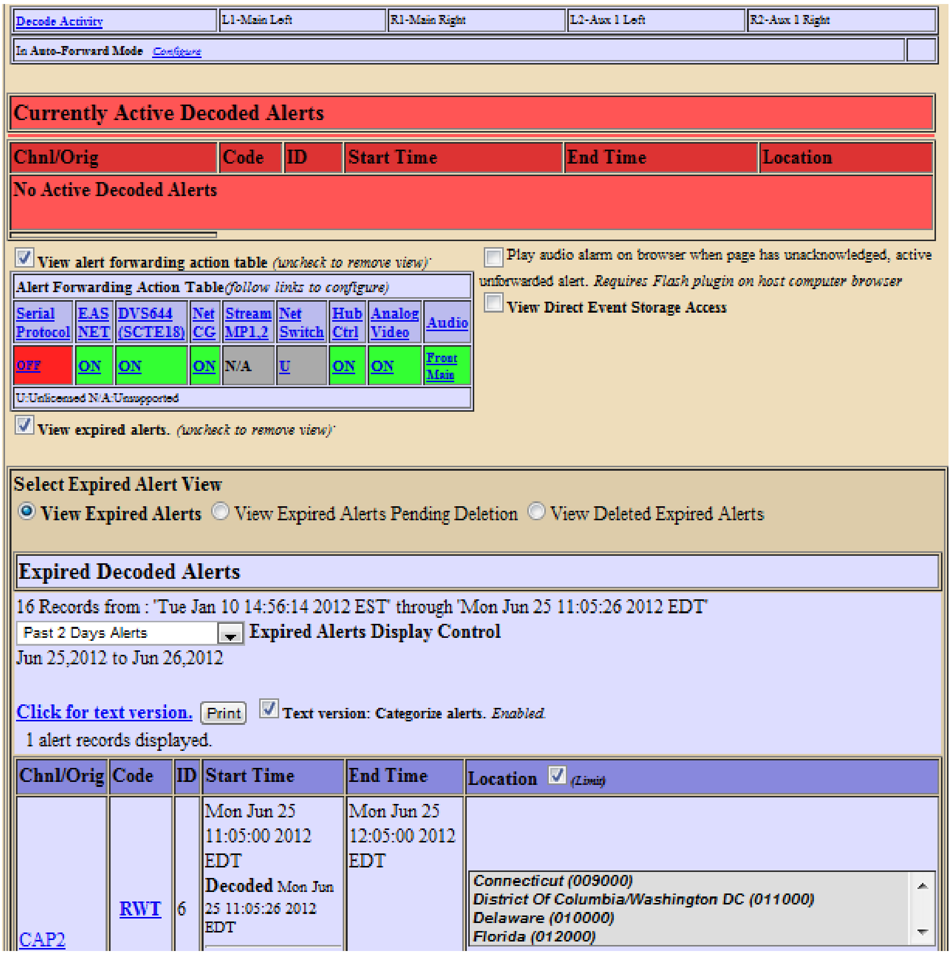
5 Decoder

The four choices on the Decoder page both bring up viewers of current and expired alerts. You can choose between **Incoming/Decoded Alerts**, **Forwarded Alerts, Originated & Forwarded Alerts,** and **All Alerts.** . These One-Net^{SE} interfaces let you see exactly which alerts have been decoded and which have also been forwarded, helping you precisely audit EAS activity.

5.1 Decoded Alerts

The **Incoming, Active & Expired Alert Status** page displays two kinds of information about decoded EAS alerts. At the top of the page active EAS alert events are displayed. Below that is the list of Expired EAS alerts. Also, at the top of the page the current Forwarding Mode is displayed as either “Auto Forward Mode” or “Manual Forward Mode”.

The event status page can be printed out from the local host's printers, by using the Web browser's print button. This makes it easy to compile FCC paper documents for EAS test accounting.



Decode Activity	L1-Main Left	R1-Main Right	L2-Aux 1 Left	R2-Aux 1 Right

In Auto-Forward Mode Configure

Currently Active Decoded Alerts

Chnl/Orig	Code	ID	Start Time	End Time	Location
No Active Decoded Alerts					

☑ **View alert forwarding action table** *(uncheck to remove view)*

Alert Forwarding Action Table*(follow links to configure)*

Serial Protocol	EAS NET	DVS644 (SCTE18)	Net CG	Stream MP1,2	Net Switch	Hub Ctrl	Analog Video	Audio
OFF	ON	ON	ON	N/A	U	ON	ON	Front Main

U:Unlicensed N/A:Unsupported

☐ Play audio alarm on browser when page has unacknowledged, active unforwarded alert. *Requires Flash plugin on host computer browser*

☐ **View Direct Event Storage Access**

☑ **View expired alerts.** *(uncheck to remove view)*

Select Expired Alert View

● **View Expired Alerts** ○ View Expired Alerts Pending Deletion ○ View Deleted Expired Alerts

Expired Decoded Alerts

16 Records from : 'Tue Jan 10 14:56:14 2012 EST' through 'Mon Jun 25 11:05:26 2012 EDT'

Past 2 Days Alerts **Expired Alerts Display Control**

Jun 25,2012 to Jun 26,2012

Click for text version. Print ☑ **Text version: Categorize alerts.** *Enabled.*

1 alert records displayed.

Chnl/Orig	Code	ID	Start Time	End Time	Location ☑ *(Limit)*
CAP2	RWT	6	Mon Jun 25 11:05:00 2012 EDT **Decoded** Mon Jun 25 11:05:26 2012 EDT	Mon Jun 25 12:05:00 2012 EDT	*Connecticut (009000)* *District Of Columbia/Washington DC (011000)* *Delaware (010000)* *Florida (012000)*

Decoder > Incoming/ Decoded Alerts

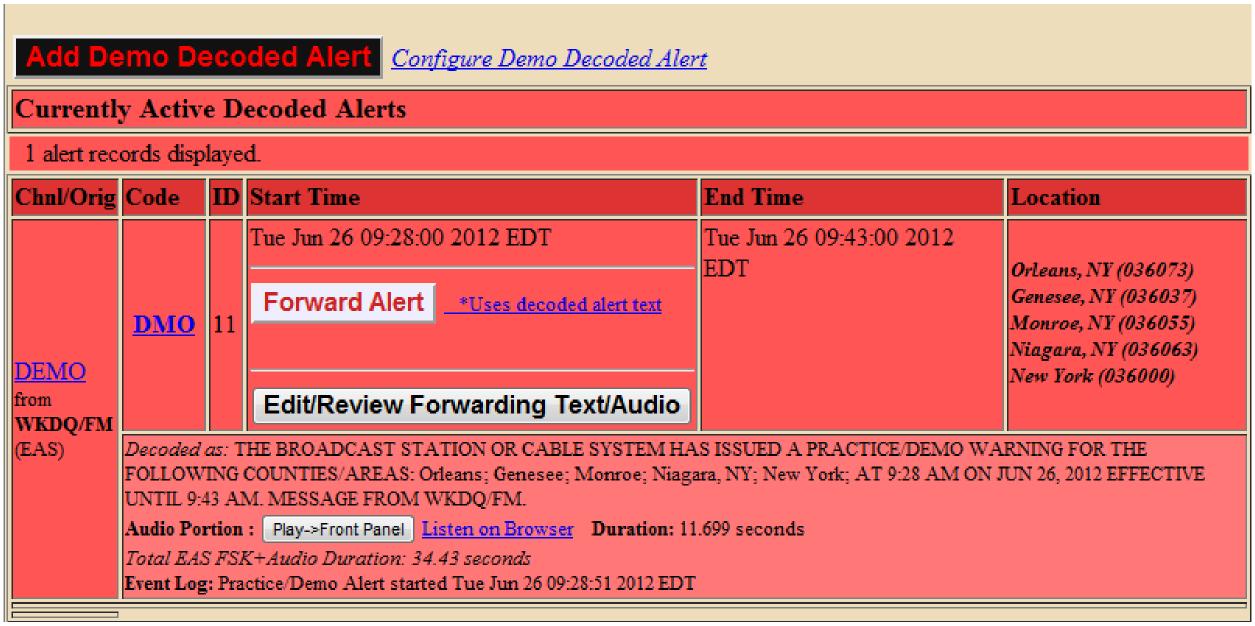
As can be seen from the example screenshot, every standard detail about the alert is presented in an easy to read table. In addition, the time the alert was decoded is displayed, as well as the time the alert was forwarded, if it was forwarded. Forwarded alerts are displayed on the **Forwarded Event Status** screen. See section 6.2.

Audio portion

If the alert has an audio message, it can be played on the One-Net^{SE} internal speaker by clicking Play->Front Panel that appears inside the alert entry. Or you can play the audio file on your host computer through your web browser by clicking the provided Listen on Browser link. The host computer must be configured with a WAV file player. Alerts that did not have an audio message will not display the two audio interfaces.

Active Decoded Alerts

The Active event list displays all decoded EAS alerts that are currently in progress, that is, between the start and end time for the alert. An active event remains on the active list until it reaches its expiration time, as determined by the event end time, or until it is canceled by another event of the same type and for the same area, that redefines the event duration. Active events are moved to the expired event list as each one finishes. Active events that are not automatically forwarded present a button to allow manual forwarding. The example screen above shows the Manual Forward button for the active Severe Weather Warning. Click on this button to forward the alert. To review and edit the alert audio before forwarding, click on the Edit/Review button. This will bring up a page that allows you to play the original audio, select a new audio message from the local audio file list, and optionally, add an announcement to be played prior to the alert play out.



Currently Active Decoded Alerts

1 alert records displayed.

Chnl/Orig	Code	ID	Start Time	End Time	Location
DEMO from **WKDQ/FM** (EAS)	**DMO**	11	Tue Jun 26 09:28:00 2012 EDT	Tue Jun 26 09:43:00 2012 EDT	*Orleans, NY (036073)* *Genesee, NY (036037)* *Monroe, NY (036055)* *Niagara, NY (036063)* *New York (036000)*

Decoded as: THE BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A PRACTICE/DEMO WARNING FOR THE FOLLOWING COUNTIES/AREAS: Orleans; Genesee; Monroe; Niagara, NY; New York; AT 9:28 AM ON JUN 26, 2012 EFFECTIVE UNTIL 9:43 AM. MESSAGE FROM WKDQ/FM.

Audio Portion : Play->Front Panel Listen on Browser **Duration:** 11.699 seconds

Total EAS FSK+Audio Duration: 34.43 seconds

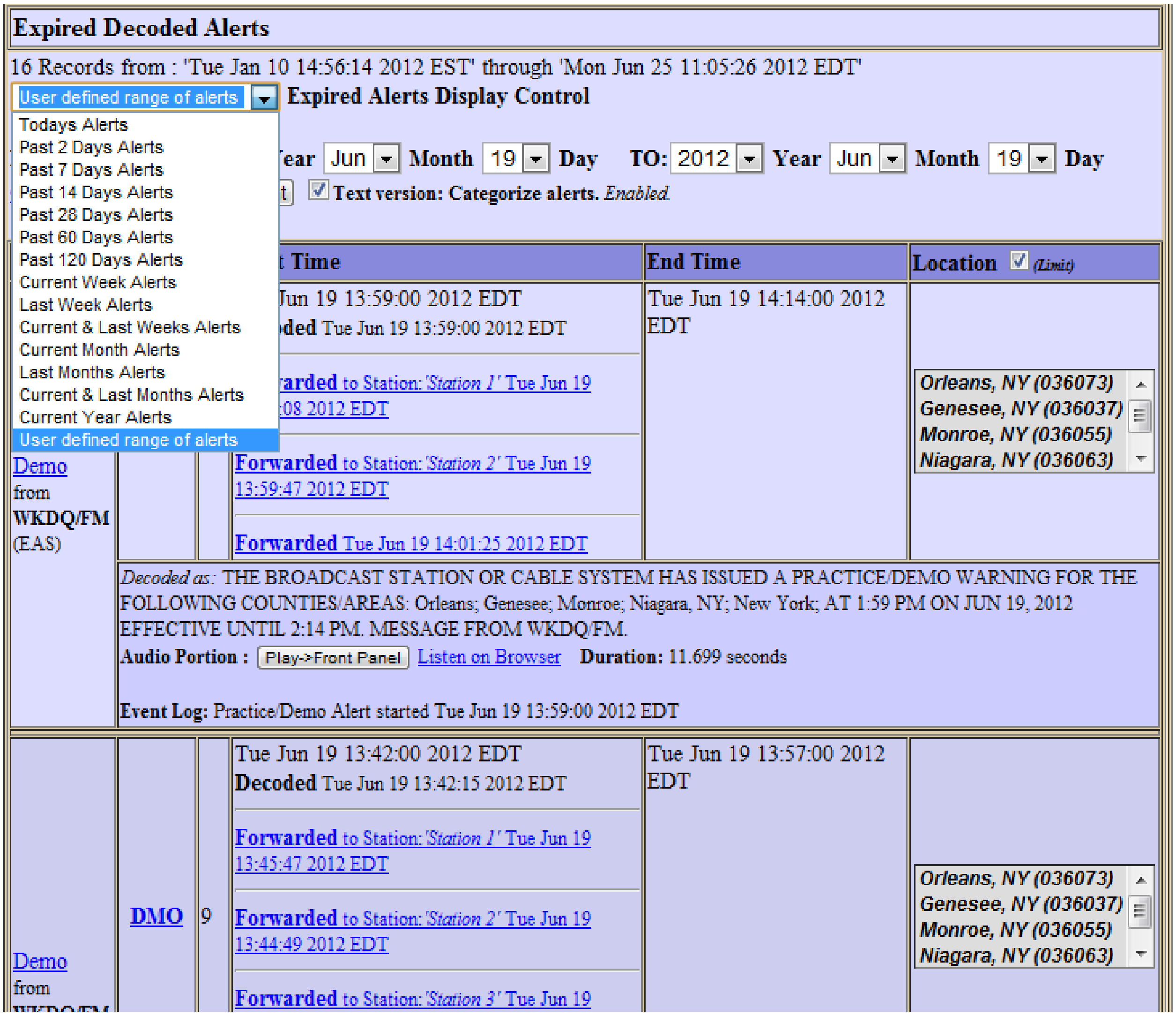
Event Log: Practice/Demo Alert started Tue Jun 26 09:28:51 2012 EDT

Decoder > Incoming/Decoded Alerts

Expired Decoded Alerts

The Expired event list lets you examine past decoded alerts for any range of dates. The following screen shows an example of the expired alerts list for a selected date range. The next screen shows the other choices that you can select from to filter the desired range. A text version is also available and you can select to view it in date order, or in a categorized view.

To select a date range use the provided pull-down menu and choose a Year, Month, and Day for the From and To dates. The list will display all available data for each expired alert decoded within the selected time period. The actual decoded headers are stored on the One-Net^{SE}, so this information is an accurate reflection of what the One-Net^{SE} received. Because of its digital disk medium, a One-Net^{SE} can archive an enormous number of expired events. The One-Net^{SE} will automatically remove the oldest event descriptions as needed to reserve enough space for new alerts. The number of stored events is at a minimum in the thousands, so you do not need to worry about losing track of important archived information.



Expired Decoded Alerts

16 Records from : 'Tue Jan 10 14:56:14 2012 EST' through 'Mon Jun 25 11:05:26 2012 EDT'

User defined range of alerts ▾ **Expired Alerts Display Control**

ear Jun ▾ Month 19 ▾ Day TO: 2012 ▾ Year Jun ▾ Month 19 ▾ Day

t] ☑ Text version: Categorize alerts. *Enabled.*

t Time | End Time | Location ☑ *(Limit)*

Jun 19 13:59:00 2012 EDT
ded Tue Jun 19 13:59:00 2012 EDT
arded to Station: *'Station 1'* Tue Jun 19 :08 2012 EDT
Forwarded to Station: *'Station 2'* Tue Jun 19 13:59:47 2012 EDT
Forwarded Tue Jun 19 14:01:25 2012 EDT

Tue Jun 19 14:14:00 2012 EDT

Orleans, NY (036073)
Genesee, NY (036037)
Monroe, NY (036055)
Niagara, NY (036063)

Demo from WKDQ/FM (EAS)

Decoded as: THE BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A PRACTICE/DEMO WARNING FOR THE FOLLOWING COUNTIES/AREAS: Orleans; Genesee; Monroe; Niagara, NY; New York; AT 1:59 PM ON JUN 19, 2012 EFFECTIVE UNTIL 2:14 PM. MESSAGE FROM WKDQ/FM.

Audio Portion : Play->Front Panel Listen on Browser **Duration:** 11.699 seconds

Event Log: Practice/Demo Alert started Tue Jun 19 13:59:00 2012 EDT

Demo from WKDQ/FM

DMO 9

Tue Jun 19 13:42:00 2012 EDT
Decoded Tue Jun 19 13:42:15 2012 EDT
Forwarded to Station: *'Station 1'* Tue Jun 19 13:45:47 2012 EDT
Forwarded to Station: *'Station 2'* Tue Jun 19 13:44:49 2012 EDT
Forwarded to Station: *'Station 3'* Tue Jun 19

Tue Jun 19 13:57:00 2012 EDT

Orleans, NY (036073)
Genesee, NY (036037)
Monroe, NY (036055)
Niagara, NY (036063)

Decoder > Incoming/Decoded Alerts: Expired Alerts

5.2 Forwarded Event Status

This page is organized exactly like the Decoded Alerts Status page. It is divided into the same two regions: the top displays active forwarded alerts, while the bottom displays a selected range of expired forwarded alerts. This page presents the same detailed alert information about Forwarded Alerts as the Decoded Alert Status page. Active forwarded events cannot be forwarded again.

5.3 Originated and Forwarded Alerts

This page is organized exactly like the Decoded Alerts Status page. It is divided into the same two regions: the top displays active forwarded alerts, while the bottom displays a selected range of expired forwarded alerts. This page presents the same detailed alert information about Originated and Forwarded Alerts as the Decoded Alert Status page. Active forwarded events cannot be forwarded again.

5.4 All Alerts

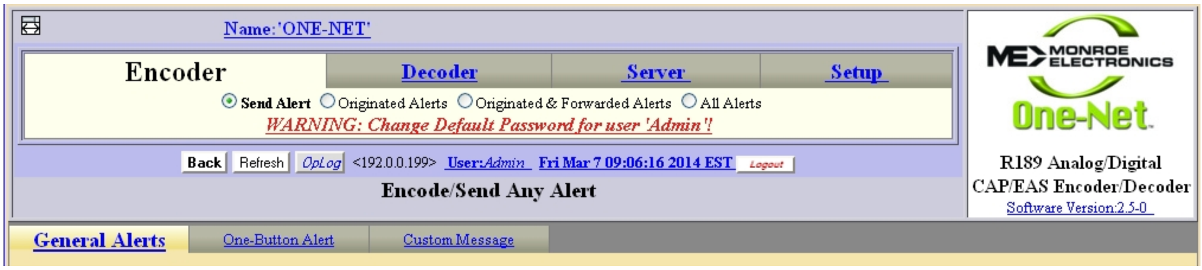
This page is organized exactly like the Decoded Alerts Status page. It is divided into the same two regions: the top displays active forwarded alerts, while the bottom displays a selected range of expired forwarded alerts. This page presents the same detailed alert information about All Alerts as the Decoded Alert Status page. Active forwarded events cannot be forwarded again.

6 Encoder

EAS alert encoding, called origination, is when the digital codes and alert audio tones and message defined by the EAS protocol, are assembled and played over a broadcast medium for which EAS decoders might be listening. The One-Net^{SE} makes EAS encoding and alert origination easy, accurate, and quick. From a single, uncomplicated web page, EAS alerts can be constructed and issued.

Only a One-Net^{SE} that has been configured with a valid Encoder license key (see **Setup** > **Server**, section) will offer the encoding feature. Without a valid license key, the One-Net^{SE} will not show the main **Encoder** menu tab (nor will it display the Setup > Encoder option button under the "Setup" main tab). There are some configuration tasks that need to be done on the Setup Encoder pages before you can use the One-Net^{SE} encoder. Make sure your One-Net^{SE} has been configured with **Setup** > **Encoder** prior to attempting EAS encoding.

There are four choices on the **Encoder** page: **Send EAS** and **Originated Alerts, Originated & Forwarded Alerts,** and **All Alerts.**


Name:'ONE-NET'

● Send Alert ○ Originated Alerts ○ Originated & Forwarded Alerts ○ All Alerts

WARNING: Change Default Password for user 'Admin'!

<192.0.0.199> User:Admin Fri Mar 7 09:06:16 2014 EST

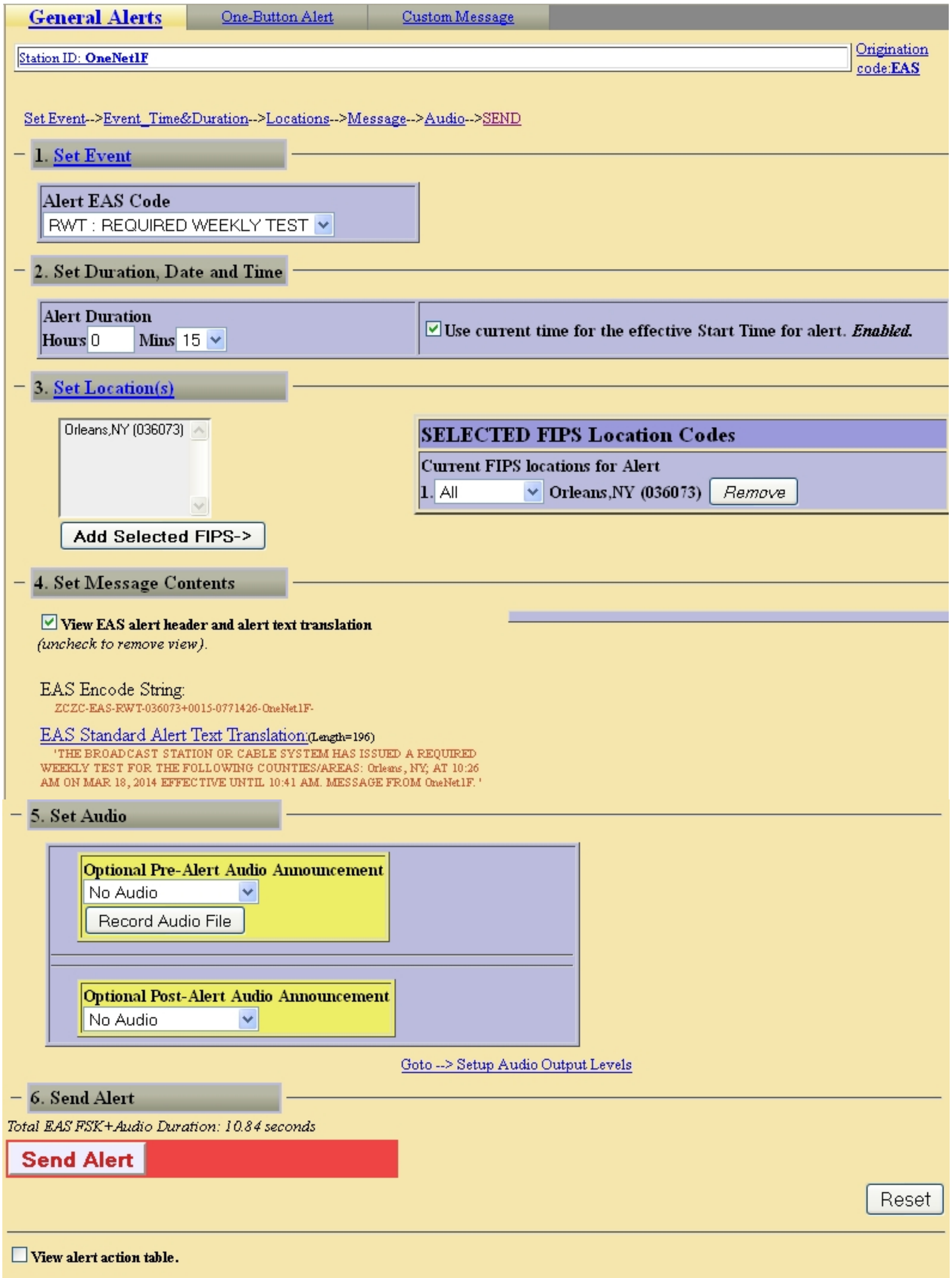
Encode/Send Any Alert

R189 Analog/Digital
CAP/EAS Encoder/Decoder
Software Version:2.5-0

Encoder > Send Alert > General Alerts

6.1 Send Alert

When you select **Send Alert**, the **Encode and Send an EAS Alert** page is displayed. This page has two sub-page options: **General Alerts** and **One-Button EAS**. Using the **One-button EAS** screen is a simple way to encode and issue weekly test alerts using a single mouse click. To encode general specific alerts, the **General Alerts** page is used.



General Alerts | One-Button Alert | Custom Message

Station ID: OneNet1F

Origination code:EAS

Set Event-->Event_Time&Duration-->Locations-->Message-->Audio-->SEND

1. Set Event

Alert EAS Code: RWT : REQUIRED WEEKLY TEST

2. Set Duration, Date and Time

Alert Duration
Hours 0 Mins 15

☑ Use current time for the effective Start Time for alert. *Enabled.*

3. Set Location(s)

Orleans,NY (036073)

Add Selected FIPS->

SELECTED FIPS Location Codes

Current FIPS locations for Alert

1. All Orleans,NY (036073) *Remove*

4. Set Message Contents

☑ **View EAS alert header and alert text translation** *(uncheck to remove view).*

EAS Encode String:

ZCZC-EAS-RWT-036073+0015-0771426-OneNet1F-

EAS Standard Alert Text Translation:(Length=196)

'THE BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 10:26 AM ON MAR 18, 2014 EFFECTIVE UNTIL 10:41 AM. MESSAGE FROM OneNet1F. '

5. Set Audio

Optional Pre-Alert Audio Announcement: No Audio

Record Audio File

Optional Post-Alert Audio Announcement: No Audio

Goto --> Setup Audio Output Levels

6. Send Alert

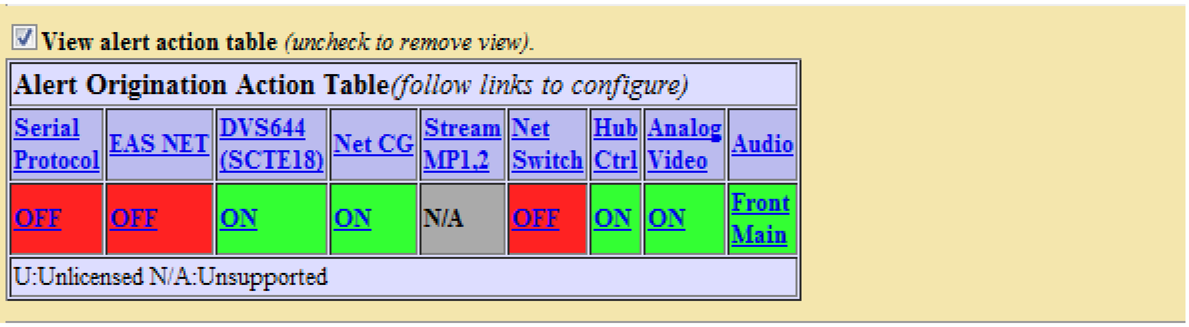
Total EAS FSK+Audio Duration: 10.84 seconds

Send Alert

Reset

□ **View alert action table.**

Encoder > General Alerts



☑ **View alert action table** *(uncheck to remove view).*

Alert Origination Action Table*(follow links to configure)*

Serial Protocol	EAS NET	DVS644 (SCTE18)	Net CG	Stream MP1.2	Net Switch	Hub Ctrl	Analog Video	Audio
OFF	OFF	ON	ON	N/A	OFF	ON	ON	Front Main

U:Unlicensed N/A:Unsupported

Encoder > General Alerts: Alert Action Table

6.1.1 General EAS

To construct and send an EAS alert, you need to set six items on the **General EAS** page:

- The EAS alert code;
- The starting time (effective time) of the alert;
- The alert duration
- The FIPS locations codes for the alert;
- The audio message, if any, for the alert.
- The audio announcement message, if any that will precede and follow the alert.

The values for these items are presented using pull-down and selection menus.

Select EAS Code

To set the EAS code, select from the codes presented under the **Select Available EAS Code** pull-down menu. The codes shown are the ones that were added to the list on the **Setup >Encoder** screen. If the list needs to be corrected, use the link Select Available EAS Code to return to the **Setup > Encoder** screen. Configure Available EAS Types for Encoder as needed. See section 5.9. Then return to the **Encoder >Send EAS >General page** to continue constructing the alert.

NOTE: Only specially configured One-Net's will allow origination of the National alerts Emergency Action Notification & Termination (EAN & EAT).

Serial Interface Status and Optional Override

Directly under the EAS code selection menu is an active hyperlink that displays the current status of the Origination serial interface CG protocol. This will inform the user if the serial interface is offline or online, and which protocol is selected if online. It also displays if the protocol has been bypassed by the checkbox toggle below. The active link points to the **Setup >Video/CG** page. The link can be followed to quickly change the CG settings used during alert origination.

Check to Bypass Use of Serial Interface

If you check this box, the current serial protocol will not be used during the alert origination.

Set Effective Time for alert

The default effective time is the current time. You can set the effective (starting) time for the alert.

Set Alert Duration

The default duration is 15 minutes. You can change the alert duration

Set FIPS locations

An EAS alert must be issued for specific locations. Until FIPS location codes are entered, the One-Net^{SE} will not present a **Send Alert?** display. Instead, a message ****Need to Add FIPS Codes**** will display in place of selected FIPS codes. Also, a message "**Alert NOT Ready to Send: Specify FIPS**" is displayed at the lower right on the page.

- To set the FIPS location(s) for the alert code, select from the list presented in the box under **Available FIPS Locations**. The codes shown are the ones that were added on the **Setup >Encoder**> **General** screen.
- If the list needs to be corrected, use the link **<u>Available FIPS Locations</u>** to return to the **Setup > Encoder > General** screen. Configure **Available Encoder FIPS Locations** for Encoder as needed. See section 5.9.1. Then return to the **Encoder >Send EAS >General page** to continue constructing the alert.
- For each location, Select one or more FIPS, and click **<u>Add Selected FIPS</u>**. Up to 31 FIPS location codes may be selected using the provided FIPS selection table.
- As you build the list of current FIPS locations for the alert, these locations display on the right. The sub-region of the FIPS location can be edited for every chosen location. If a different sub-region is desired, select one of the choices presented in the pull-down menu displayed to the left of the FIPS code.
- If a FIPS location needs to be removed from the list for the alert, click the **<u>Remove</u>** option that is presented with every chosen FIPS entry.
- After you select the FIPS location(s), the "Alert NOT Ready..." message changes to a **Send Alert?** Button. The alert can be sent immediately if no audio message is needed. However, often the alert should have Pre-Alert Audio Announcement or an Audio File.
- Pushing the Reset button will restart the entire process.

Select Alert Audio (Optional)
Use this pull-down menu to select a prerecorded audio file to play during the alert. This option is not presented for Required Weekly Test (RWT). Audio files can be added to this list in two ways. WAV files can be uploaded using the Upload interface described below. Or, audio files can be directly recorded into the One-Net^{SE} by using button described below. When an audio file is selected, its duration will appear, along with a link to play the file on the host browser, as well as two buttons. The **Preview Selected** button will play the file over the One-Net^{SE} internal speaker. The **Delete Selected** button will allow file deletion from the audio list.

Record Audio File (Optional)
When the **Record Audio File** button is pushed a new, temporary page is displayed. This page provides controls for recording audio with a microphone.

- The microphone must be connected to the main microphone input jack at the back of the One-Net^{SE}. To record, provide a unique file name for the audio file by entering the name in the "**New Audio Filename**" text field. (A unique file name is one not already used in the provided "**Select Audio File**" selection box. If you use an existing name, the original file by that name will be overwritten.)
- Push the Record Audio button and speak.
- Click on the **Stop Audio Recording** button when complete.
- The file will appear in the Audio File selection box. It may be previewed on the One-Net^{SE} using the "**Preview Selected"** button. The duration of this file must be under two (2) minutes. The One-Net^{SE} will automatically cut off recording at 2 minutes in order to insure this limit.
- Once the file is correct, select it from the Audio File selection box. In the example above, the file floodevac.wav has been selected.

Select Pre-Alert Audio Announcement (Optional)
Use the pull-down menu to select a prerecorded audio announcement to precede the actual alert announcement. The selected file has the duration displayed.

Select Post-Alert Audio Announcement (Optional)
Use the pull-down menu to select a prerecorded audio announcement to play after the actual alert announcement. The selected file has the duration displayed.

Upload Audio .WAV file to One-Net^{SE} Server.
You can upload a pre-recorded digital audio file (in the .wav format) from your local host computer file system using the provided **Upload Audio .WAV file to One-Net server** interface at the bottom of the page. The browse button will use your browser's file system navigator to find an audio file. Once the file is selected, click **Upload WAV file.** The file will now appear in the Audio file lists.

6.1.2 Send Alert

Once the alert has been constructed correctly, click on the Send Alert? Button. The One-Net^{SE} will present a confirmation page with a review of the encoding details.

Review of Prepared Alert

Examine the confirmation page prior to sending the alert. If the alert is correct, it can be sent by clicking the **Yes, Send Alert!** button. Or you can cancel the send alert with the **Cancel Alert** button. If the alert send is canceled, the One-Net^{SE} will go back to the **Encode and Send an EAS Alert** page. Change the alert information before attempting to send the alert.

If the EAS alert data is accurate, and you are ready to issue the alert, click on the **Yes, Send Alert!** button. The alert will be "originated", that is, played, out of the selected One-Net^{SE} audio output ports. The originated alert audio ports are selected from either the **Setup Encoder > Audio** or the **Setup Audio > Encoder** screens. See section 5.6.3.

During the origination time, the front panel red LED will be lit and the audio of the alert will play from the built-in One-Net^{SE} internal speaker. For the duration of the issued alert, the One-Net^{SE} will periodically crawl the alert text across the front panel LCD. The LCD text for the letter “O” will precede the alert, indicating a One-Net^{SE} originated alert. The details of this alert will be viewable on the screen Encoder Originated Alert Status [**Encoder > Originated Alerts**].

6.1.3 One-Button EAS

The One-Net^{SE} allows required weekly tests to be preconfigured on the **Setup > Encoder > Required Tests** page. Once these have been configured, the **Encoder > Send EAS > One-Button EAS** page will present a button to issue the alert. This makes it simple to send these test alerts, without having to select details. The alert start time is set to be effective immediately. The serial interface status and bypass are also present as in the **General EAS** screen. See section 7.1.1

6.2 Originated Alerts

The Encoder Originated Alert Status page is organized just like the Decoder Decoded Alert Status page. You can look at the details of every alert originated from the One-Net^{SE}. The following types of alerts are displayed:

- Scheduled Originated Alerts. Scheduled alerts occur when random Weekly tests are automatically scheduled and when specific alerts are sent starting at a future time.
- Currently Active Originated Alerts
- Expired Originated Alerts

You can select specific dates for expired alerts using the FROM and TO date selection pull-down menus or the other choices shown under the Decoded Alerts Section 6.1.

7 Testing One-Net^{SE} Encoding and Decoding

A good way to test the One-Net^{SE} is to have a second sound card installed and run an audio cable between the output of the second audio card into the input of the first card. Make sure the origination audio out is set to play over the auxiliary audio output and that one decoder is operational on the Main audio input (use **Setup** > **Audio** > **Decoder**). Turn off forwarding audio toggles. Then run the Encoder and send the alert. The One-Net^{SE} will both send and decode the alert.

8 Server

The Server pages present all kinds of system status and helpful information.
There are three choices on the Server tab:

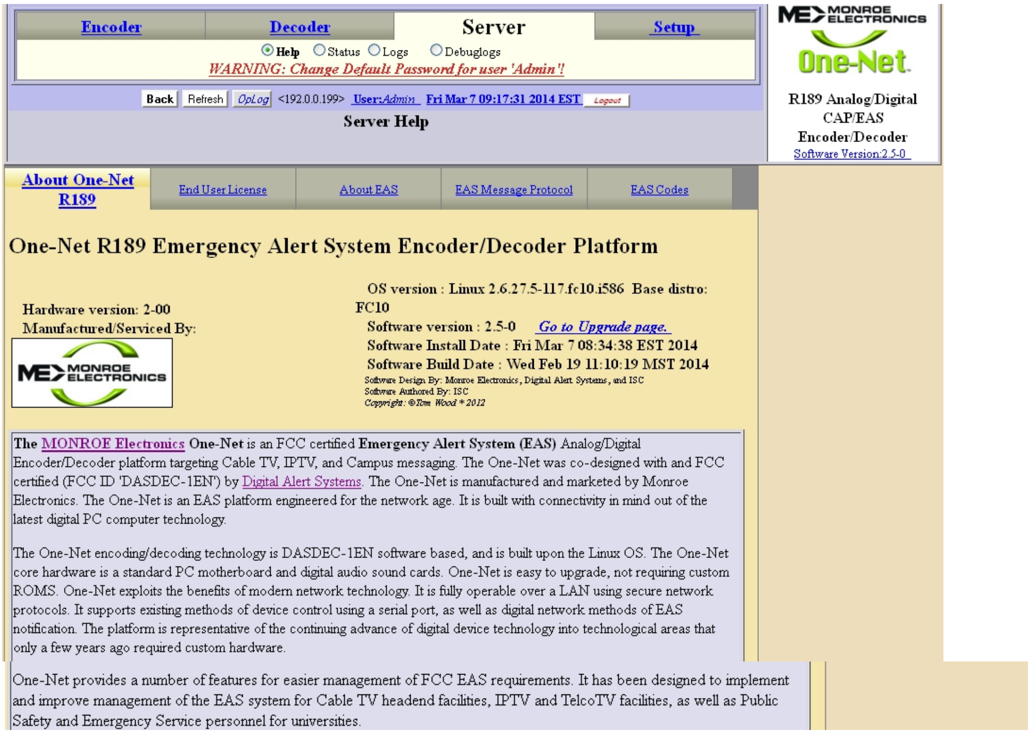
Help **Status** **Logs**

8.1 Server > Help: Server Help

The **Server Help** page displays information about the One-Net^{SE}, EAS, EAS Message Protocol, and EAS Codes.

8.1.1 About One-Net^{SE}: One-Net^{SE} EAS Encoder/Decoder Platform

Presents information about the installed One-Net^{SE} software and about Monroe Electronics and Digital Alert Systems, LLC.



WARNING: Change Default Password for user 'Admin'!

<192.0.0.199> User:Admin Fri Mar 7 09:17:31 2014 EST

Server Help

R189 Analog/Digital CAP/EAS Encoder/Decoder

One-Net R189 Emergency Alert System Encoder/Decoder Platform

Hardware version: 2-00
Manufactured/Serviced By:

OS version : Linux 2.6.27.5-117.fc10.i586 Base distro: FC10
Software version : 2.5-0
Software Install Date : Fri Mar 7 08:34:38 EST 2014
Software Build Date : Wed Feb 19 11:10:19 MST 2014
Software Design By: Monroe Electronics, Digital Alert Systems, and ISC
Software Authored By: ISC
Copyright: ©Tom Wood * 2012

The MONROE Electronics **One-Net** is an FCC certified **Emergency Alert System (EAS)** Analog/Digital Encoder/Decoder platform targeting Cable TV, IPTV, and Campus messaging. The One-Net was co-designed with and FCC certified (FCC ID 'DASDEC-1EN') by Digital Alert Systems. The One-Net is manufactured and marketed by Monroe Electronics. The One-Net is an EAS platform engineered for the network age. It is built with connectivity in mind out of the latest digital PC computer technology.

The One-Net encoding/decoding technology is DASDEC-1EN software based, and is built upon the Linux OS. The One-Net core hardware is a standard PC motherboard and digital audio sound cards. One-Net is easy to upgrade, not requiring custom ROMS. One-Net exploits the benefits of modern network technology. It is fully operable over a LAN using secure network protocols. It supports existing methods of device control using a serial port, as well as digital network methods of EAS notification. The platform is representative of the continuing advance of digital device technology into technological areas that only a few years ago required custom hardware.

One-Net provides a number of features for easier management of FCC EAS requirements. It has been designed to implement and improve management of the EAS system for Cable TV headend facilities, IPTV and TelcoTV facilities, as well as Public Safety and Emergency Service personnel for universities.

Server > Help

8.1.2 About EAS: The Emergency Alert System

Presents information about the Emergency Alert System: purpose, operation, management, your responsibility as a broadcaster, and the future of EAS and One-Net^{SE}.

8.1.3 EAS Message Protocol

Presents information about the EAS protocol from the FCC.

8.1.4 EAS Codes: EAS Code Table

Presents a list of the EAS event codes that are presently authorized, both national and state.

8.2 Server > Status: One-Net^{SE} Server Status

The **One-Net^{SE} Server Status Main** page displays a summary of status information about the One-Net^{SE} on a single page. The Platform ID, System Uptime, Decoder and Other Server Status, Disk Usage and SSH DSA Public Encryption Key are displayed. This page is a convenient way to see at a glance the state of the decoder channels and the basic encoder and decoder configuration.

8.3 Server > Logs: Server Logs

The **Server Logs** screen has six sub-pages: Web Session Log, Operation Log, Operating System Log, Security Log, Boot Log, and Email Log.

8.3.1 Web Session Log: One-Net^{SE} EAS Encoder/Decoder Platform

Presents dated information about user access to the One-Net^{SE}. Two settings are available. If the Today's log checkbox is checked, then this page will always show the Web session log for the current day. To view archived web session log files, uncheck the box. Then select a log for a specific date. You can then show the log for the previous or the next day. Log files a day old or more past can be deleted using the provided delete button. This page can be refreshed by clicking on the Refresh button at the bottom of the page to reveal new information.

8.3.2 Operation Log

Presents dated information about the One-Net^{SE} Operation. This interface works the same as the one for the Web session log. All important EAS events will be shown here.

8.3.3 Operating System Log

Presents the last 500 lines of the Linux system System Log.

8.3.4 Security Log

Presents the last 500 lines of the Linux system Security Log.

8.3.5 Boot Log

Presents the last 500 lines of the Linux system Boot Log.

8.3.6 Email Log

Presents the last 1000 lines of the Email Log.

9 Typical Tasks

This section of the manual is intended for users that have already set up and configured their One-Net(s) and would like to know what to do to complete certain tasks, and also how to manage when alerts are present. When your One-Net is up and running, there are still things that need to be done in order to be in compliance with the rules placed on all EAS regulations. Things like, receiving and forwarding alerts as well as keeping accurate and accessible logs of that data. This part of the manual will step you through the process on many different tasks, and it will be able to show you what may happen, or what should happen in the most common situations.

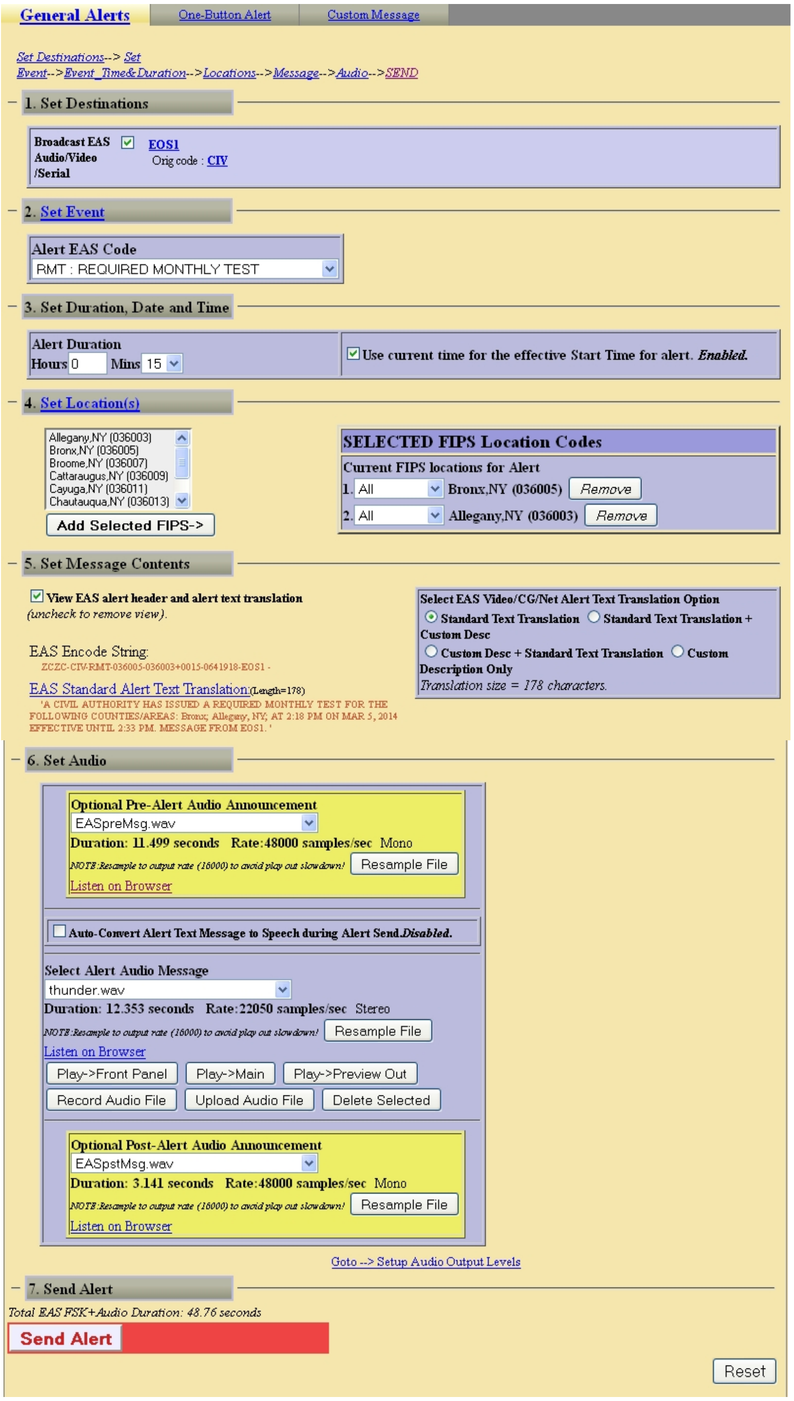
Originating/Encoding an Alert

Originating and Encoding mean the same thing; it is the creation of an alert that can be forwarded over your own broadcast. When this alert is forwarded over your broadcast, *any station that is tuning into your station will receive and decode that alert in that station's own EAS device*. Simply, any station that is listening to your station on their EAS device will receive and decode the alert that you sent out, just like if you were to receive an alert from another station over your radio tuners. This is a useful tool for making custom alerts and putting them on your own broadcast.

Originating an Emergency Alert

In the beginning of the section, you configured your settings for setting up a general Encoded Emergency Alert. So this will be pretty simple.

To create an originated alert to forward over your broadcast, go to ***Encoder* > *Send Alert* > *General Alerts*** and configure the options to how you want your alert to look. The options are put into six steps for you. An example of setting up an alert is shown next in a screenshot:



Set Destinations--> Set Event--> Event_Time&Duration--> Locations--> Message--> Audio--> SEND

1. Set Destinations

Broadcast EAS Audio/Video /Serial ☑ EOS1
Orig code : CIV

2. Set Event

Alert EAS Code: RMT : REQUIRED MONTHLY TEST

3. Set Duration, Date and Time

Alert Duration
Hours 0 Mins 15

☑ Use current time for the effective Start Time for alert. *Enabled.*

4. Set Location(s)

Allegany,NY (036003)
Bronx,NY (036005)
Broome,NY (036007)
Cattaraugus,NY (036009)
Cayuga,NY (036011)
Chautauqua,NY (036013)

SELECTED FIPS Location Codes

Current FIPS locations for Alert
1. All Bronx,NY (036005)
2. All Allegany,NY (036003)

5. Set Message Contents

☑ View EAS alert header and alert text translation
(uncheck to remove view).

EAS Encode String:
ZCZC-CIV-RMT-036005-036003+0015-0641918-EOS1 -

EAS Standard Alert Text Translation:(Length=178)
'A CIVIL AUTHORITY HAS ISSUED A REQUIRED MONTHLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Bronx; Allegany, NY; AT 2:18 PM ON MAR 5, 2014 EFFECTIVE UNTIL 2:33 PM. MESSAGE FROM EOS1. '

Select EAS Video/CG/Net Alert Text Translation Option
● Standard Text Translation ○ Standard Text Translation + Custom Desc
○ Custom Desc + Standard Text Translation ○ Custom Description Only
Translation size = 178 characters.

6. Set Audio

Optional Pre-Alert Audio Announcement
EASpreMsg.wav
Duration: 11.499 seconds Rate:48000 samples/sec Mono
NOTE:Resample to output rate (16000) to avoid play out slowdown!

□ Auto-Convert Alert Text Message to Speech during Alert Send.*Disabled.*

Select Alert Audio Message
thunder.wav
Duration: 12.353 seconds Rate:22050 samples/sec Stereo
NOTE:Resample to output rate (16000) to avoid play out slowdown!

Optional Post-Alert Audio Announcement
EASpstMsg.wav
Duration: 3.141 seconds Rate:48000 samples/sec Mono
NOTE:Resample to output rate (16000) to avoid play out slowdown!

Goto --> Setup Audio Output Levels

7. Send Alert

Total EAS FSK+Audio Duration: 48.76 seconds

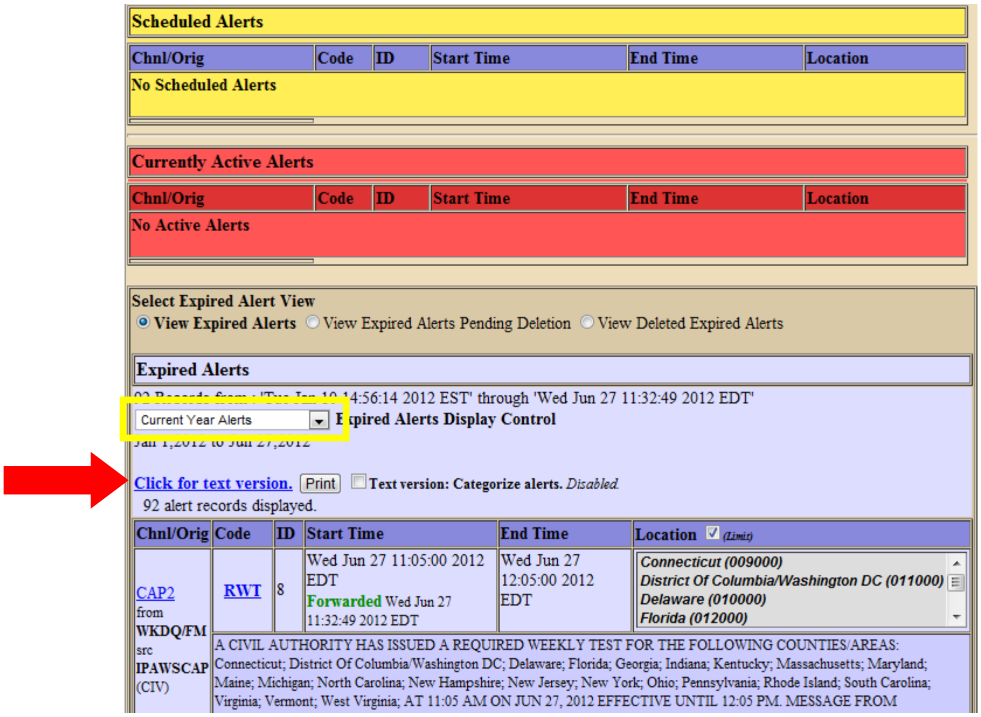
To forward the alert over your broadcast, click on **Send Alert**, and then you will be sent to a confirmation page. Confirm the alert, and it will be sent out over your broadcast.

Retrieving the Logged Alerts in your One-Net

So you have been decoding alerts, encoding your RWTs and forwarding alerts for a while now, and you have done a great job. But all of a sudden, the FCC comes to your station's doorstep and demands that you prove to them that you have been sending out all of your RWTs and have been receiving alerts from other stations. You might panic, but the truth is it is really simple, and it's a good thing you have these next couple of steps to prove to them how you have been following all of the rules.

Steps to Viewing/Downloading/Printing your One-Net's logged alerts:

1. Go to ***Decoder* > *All alerts*** in the One-Net Online interface. It should look something like this:



Scheduled Alerts					
Chnl/Orig	Code	ID	Start Time	End Time	Location
No Scheduled Alerts					

Currently Active Alerts					
Chnl/Orig	Code	ID	Start Time	End Time	Location
No Active Alerts					

Select Expired Alert View
● View Expired Alerts ○ View Expired Alerts Pending Deletion ○ View Deleted Expired Alerts

Expired Alerts
92 Records from : 'Tue Jan 10 14:56:14 2012 EST' through 'Wed Jun 27 11:32:49 2012 EDT'
Current Year Alerts Expired Alerts Display Control
Jan 1,2012 to Jun 27,2012

Click for text version. Print ☐ Text version: Categorize alerts. *Disabled*
92 alert records displayed.

Chnl/Orig	Code	ID	Start Time	End Time	Location ☑ *(Limit)*
CAP2 from **WKDQ/FM** src **IPAWSCAP** (CIV)	RWT	8	Wed Jun 27 11:05:00 2012 EDT **Forwarded** Wed Jun 27 11:32:49 2012 EDT	Wed Jun 27 12:05:00 2012 EDT	*Connecticut (009000)* *District Of Columbia/Washington DC (011000)* *Delaware (010000)* *Florida (012000)*
	A CIVIL AUTHORITY HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Connecticut; District Of Columbia/Washington DC; Delaware; Florida; Georgia; Indiana; Kentucky; Massachusetts; Maryland; Maine; Michigan; North Carolina; New Hampshire; New Jersey; New York; Ohio; Pennsylvania; Rhode Island; South Carolina; Virginia; Vermont; West Virginia; AT 11:05 AM ON JUN 27, 2012 EFFECTIVE UNTIL 12:05 PM. MESSAGE FROM				

By the way, your One-Net saves all of your Encoded, Decoded and Forwarded alert information automatically.

2. In the yellow box on the screen shot, you want to select the amount of time you want to look back when you view your alerts. So if the FCC says "We want the alerts from the past month" then select the option that shows them the alerts from the past month.
3. The big red arrow in the screenshot points to a hyperlink that says **Click for text version**. *This is the key to retrieving, downloading and printing your alerts.*
   a. To view your alerts, simply click on the hyperlink. This will take your web browser to a new page that shows you all of the alerts that apply to the selected time you chose. If you want to go back, just use the back button in your web browser. You can print this by pressing Ctrl + P on your keyboard, and then proceeding with the printing options.
   b. To download your alerts, right click on the hyperlink. In the right click options, you will be given the choice to pick "Save link as…" From there, you can save the .txt (text file) file anywhere on your computer. This file can be opened by a simple text file viewer. This can also be printed from the text file.
   c. Lastly, you can just print the logs by clicking on the Print button next to the hyperlink. If you have a default printer configured to your One-Net, then clicking on this button will automatically begin printing all of the alerts in the selected amount of time that you chose.

That’s basically it. There is an advanced option next to the print button that organizes your printout in groups of forwarded, decoded and encoded alerts instead of it all being in order by the date, but you don’t need to enable that in order to print out your reports.

Retrieving your One-Net OpLog:

To retrieve a One-Net Op Log:

1. Log in to the One-Net
2. Go to ***Server > Logs > Operation Log***

For the current days’ log

3. Make sure ***View Today’s Log*** is checked.
4. Click (or right-click to save) the hyperlink “***Click for Text version of log file***” to show the current day’s file

For archived logs

3. Uncheck the ***View Today’s Log*** box.
4. Using the pull-down selection boxes select the Year, Month and Day to retrieve the log. (Note: The selection boxes show only dates with stored data, therefore not all days may appear.)
5. Click (or right-click to save) the hyperlink “***Click for Text version of log file***” to show the current day’s file

Log files will either show on the screen or be saved as a text (.txt) file.

Installing a license key

To install a license key (CAP Plus, for example):

1. Log in to the One-Net
2. Go to **Setup > Server > Main/License** page
3. Locate the **CAP Plus** field then insert the license key that should have been given to you in an email.

The CAP LICENSE KEY below is between the quotes and it is important to verify the serial number matches the serial number of the unit. Note it is much easier to cut and paste instead of typing, as these keys are case, space and all character sensitive.

S/N xxxxx CAP PLUS “xxxxxxxxxxxxxxxxxxxxxx”

4. Once the key is copied into the appropriate field, scroll to the bottom of the page and click "Restart Server"
5. After the software restarts, log back in and verify the field is and shows the word ***:VALID***

NOTE: (Specifically for the CAP Plus Key) The One-Net must be at Version 2.0-0_a03 or above to provide the FEMA IPAWS interface. The version number shown in the upper right-hand box is only the first portion of the entire version number. Clicking on the version number will take you to the "About" page where you will see the "whole" version number. You can download the latest version at http://www.digitalalertsystems.com/registration_updates.html

Backing up the One-Net configuration file

You have been using your One-Net for a while now, and you want to save the settings that you have carefully adjusted and configured your One-Net to. Here is how to save that configuration:

1. Log into the One-Net.
2. Go to **Setup > Sever > Configuration Mgmt**
3. To ensure the latest configuration is stored click on the **Make Backup** button. This will create a backup file with the current date and time as the initial part of the file name. An example backup file may be 2012*_04_12_19_*26*_One-Net_*config.zip where the file was created on April 12, 2012 at 5:26 PM.
4. Look for the title ***List of Configuration Backup Files*** and the pull down selector directly below.
5. Select the file created in step 3 above. The list is sorted numerically (from earliest date at the top) then alphabetically
6. The screen will refresh and the selected file will be queued in the blue hyperlink area

   Download selected configuration file
   'yyyy_mm_dd_hh_mm_One-Net_config.zip'.
7. **Right click** on the file name will present a list of options.
8. Select **Download Linked File…** or **Save link as…**
9. Navigate to the location you wish to store the configuration file on the external computer or storage device (ie USB stick, network drive, etc.)
10. Click **Save** to store the backup copy of the configuration file. *NOTE: the network interface IP addresses are purposely not retained in the configuration file. It may be useful to record this numbers in a separate file or take a screen shot of the* ***Setup > Network*** *page for your records.*

Uploading an audio file in a One-Net

Step One – Generate an acceptable audio message.

The EAS handbook recommended a very simple message "This is a test of the Emergency Alert System."

There is no requirement regarding the message contents, however brief is good.

1. Have one of your announcers create an RMT audio message and store this as a .wav file.
   - ➢ (It is recommended that you name the file xxxx-RMT.wav where xxxx is your station ID)
2. Place the file on a computer with access to the One-Net

Step Two – Load the .wav file into the One-Net

There are several ways to upload an audio file into the One-Net, this is just one.

1. Log into the One-Net.
2. Go to **Encoder > Send EAS > General EAS**
3. Go to the bottom of the page and select the box **Display audio record and upload interface** *(hidden, check to display).*
4. When he box expands click "Choose File"
5. Browse the file options and locate the xxxx-RMT.wav file
6. Select the file and select "Choose" or "OK" The file name should now appear in the blue box.
7. Select "Upload .WAV file" This will place the file in the One-Net and make it selectable when executing an EAS event
8. Process is complete – you can exit now

Step Three – Using the .wav file in an EAS message

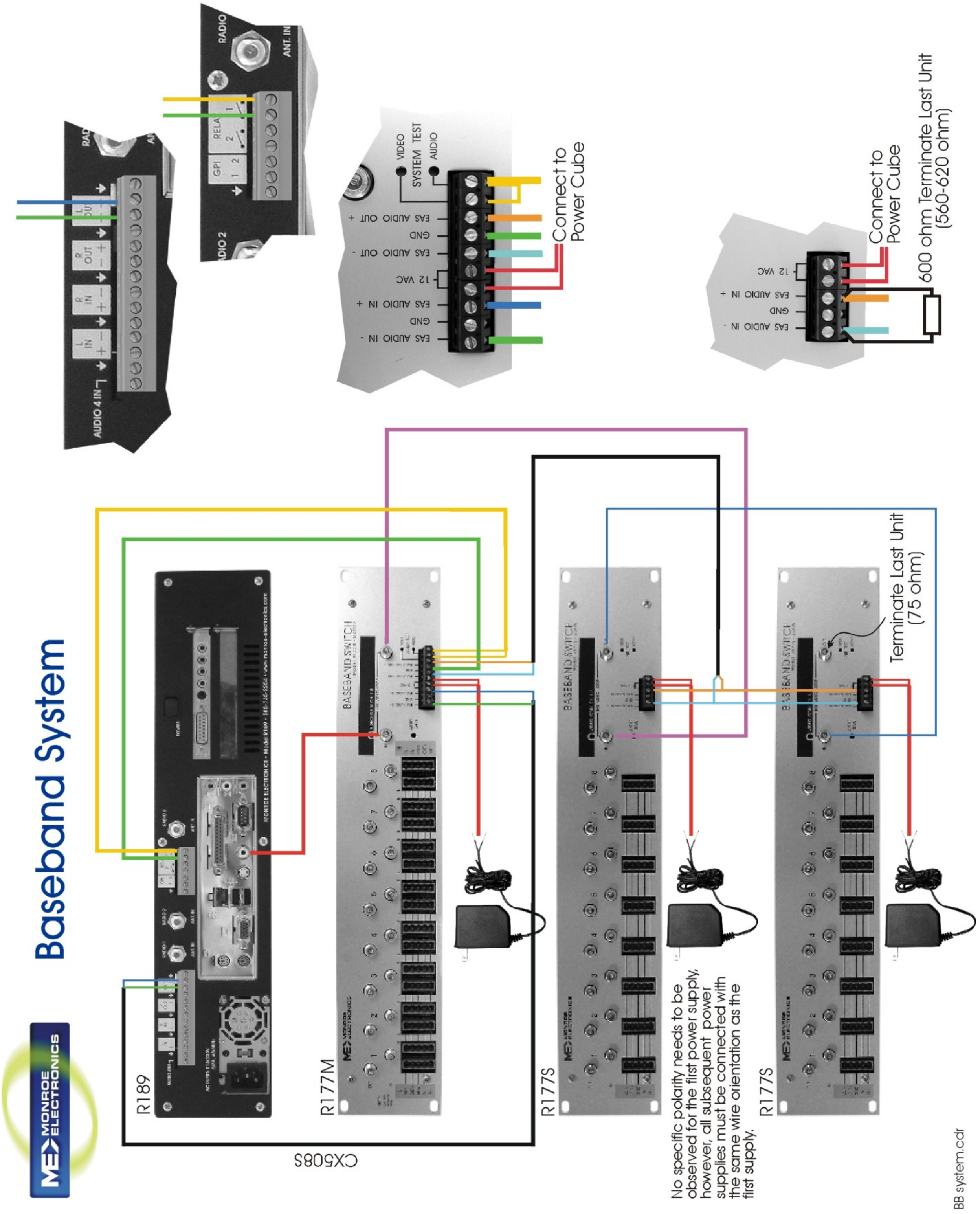
Once the file has been uploaded it is available for selection as part of the EAS play out.

To use this for an RMT:

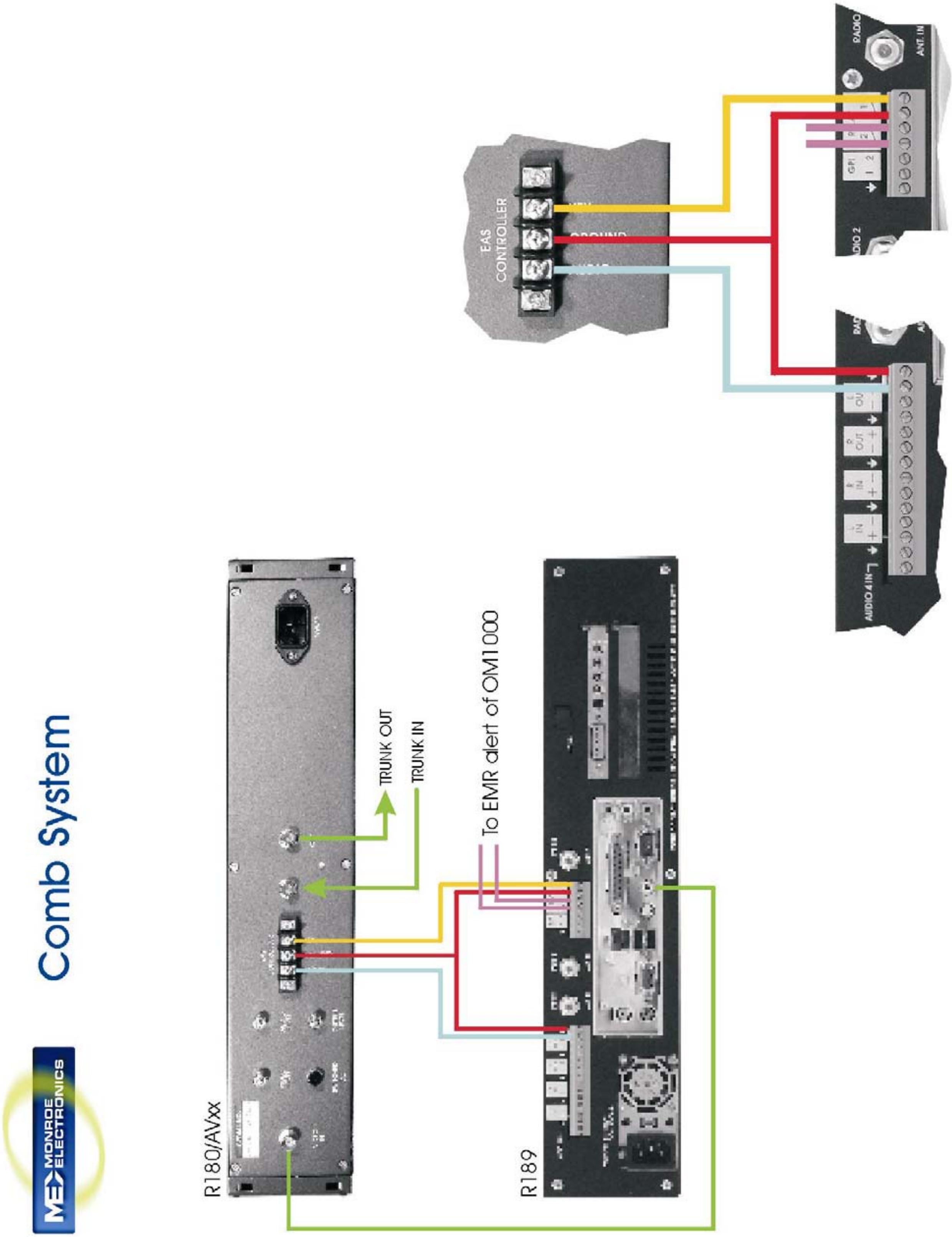
1. Log into the One-Net.
2. Go to **Encoder > Send EAS > General EAS**
3. Set all the standard EAS parameters for RMT, duration, and effective time.
4. Set all the FIPS codes
5. Go to the audio selection pull down menus. There are three pull-down selection menus;
    - **Optional Pre-Alert Audio Announcement;**
    - **Select Alert Audio Message;**
    - **Optional Post-Alert Audio Announcement**
6. Using the Select **Alert Audio Message;** pull-down select the xxxx-RMT.wav file
    - You can select any of the pre-loaded audio files in any of the three locations. The optional Pre-Alert and Post-Alert selections will bracket the EAS event with audio messages, HOWEVER if you want it to be part of the EAS message you must select the audio file using the **Select Alert Audio Message** pull down.
7. Send the EAS message.
    - The audio will be quack, tones, xxxx-RMT.wav, quack
8. Message complete

10 Connection Diagrams

Baseband System

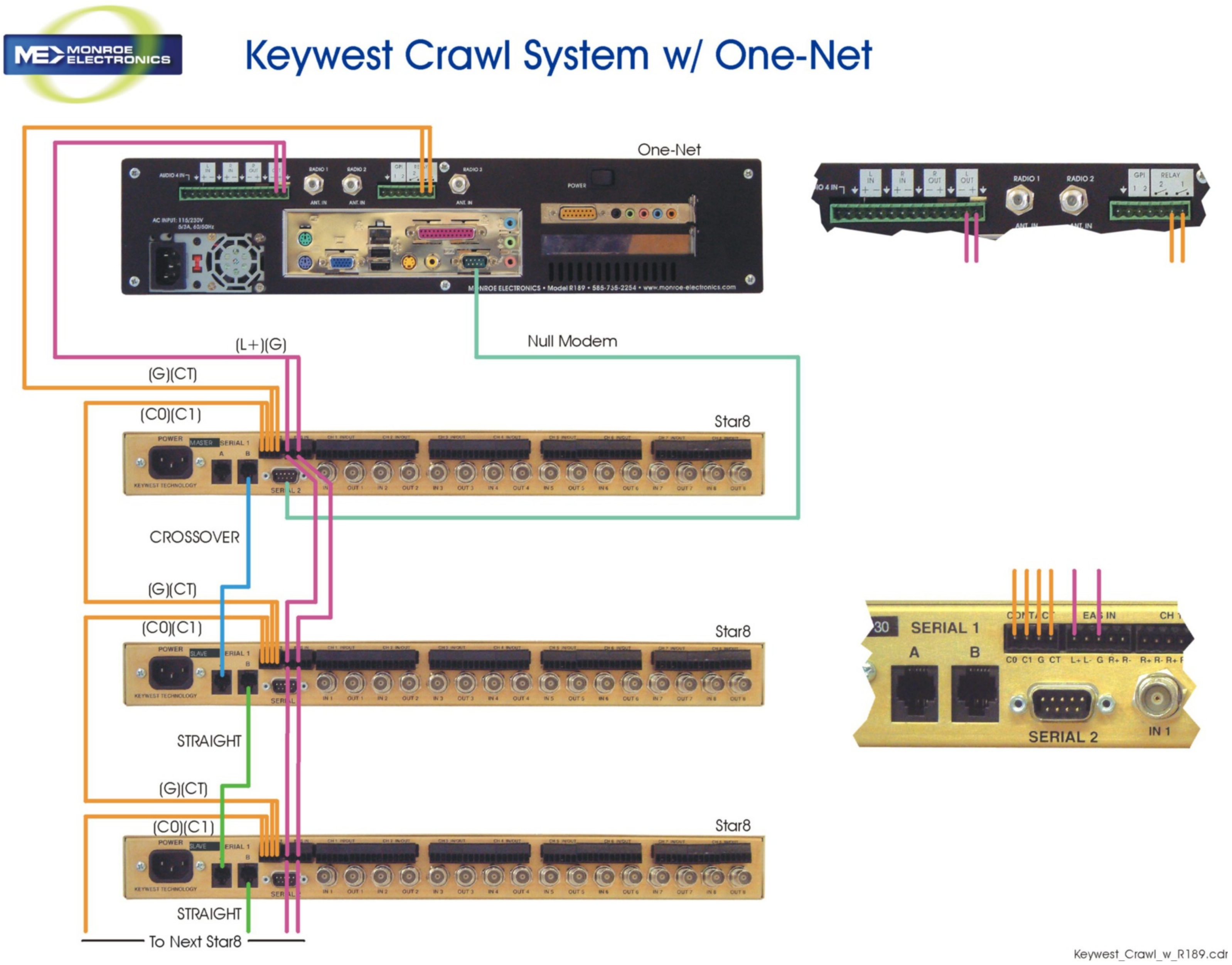


Comb System

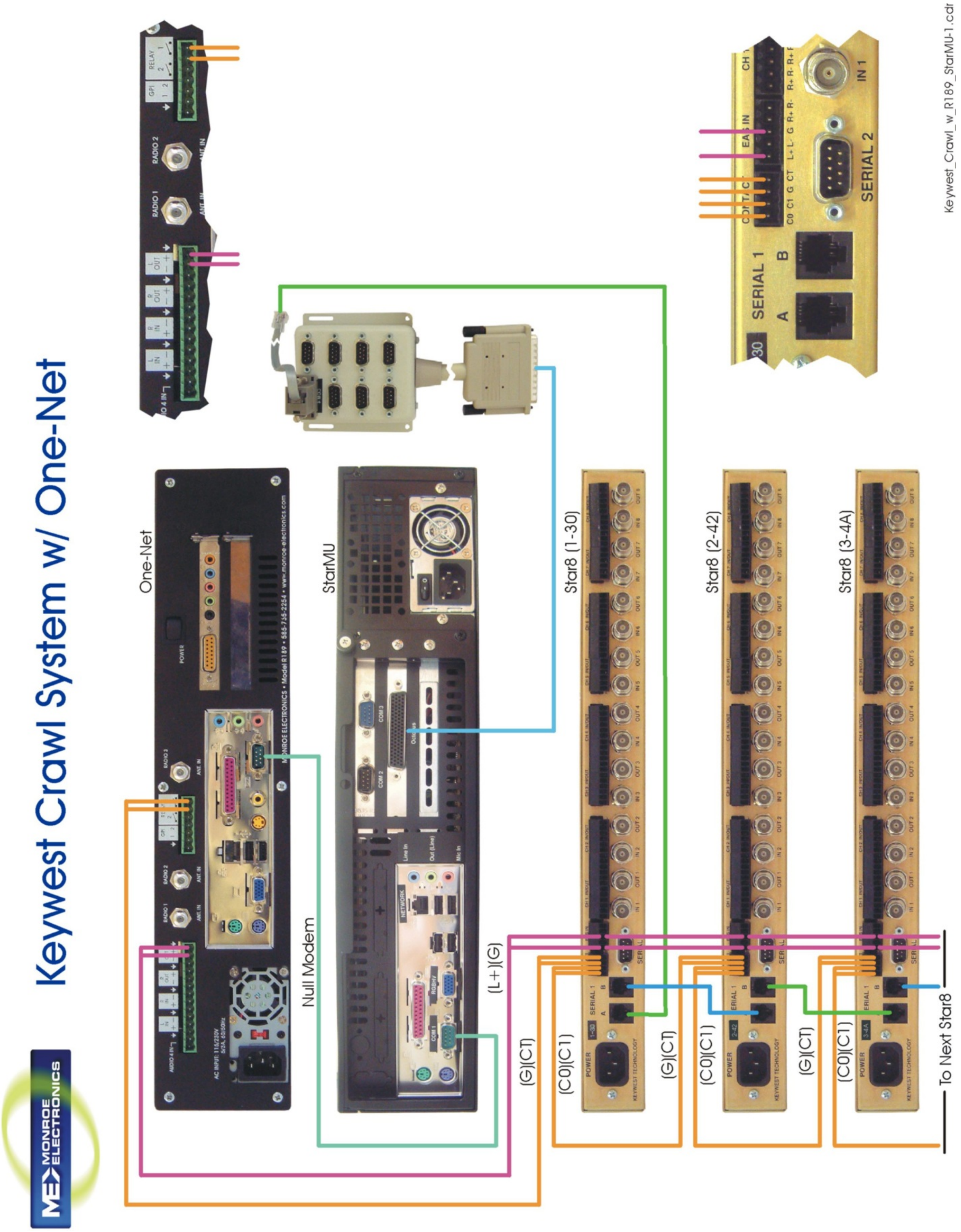

MONROE ELECTRONICS
Comb System
R180/AVxx
TRUNK OUT
TRUNK IN
To EMR alert of OM1000
R189
EAS CONTROLLER
AUDIO 4 IN
RADIO
ANT. IN
GPI

KeyWest Crawl System

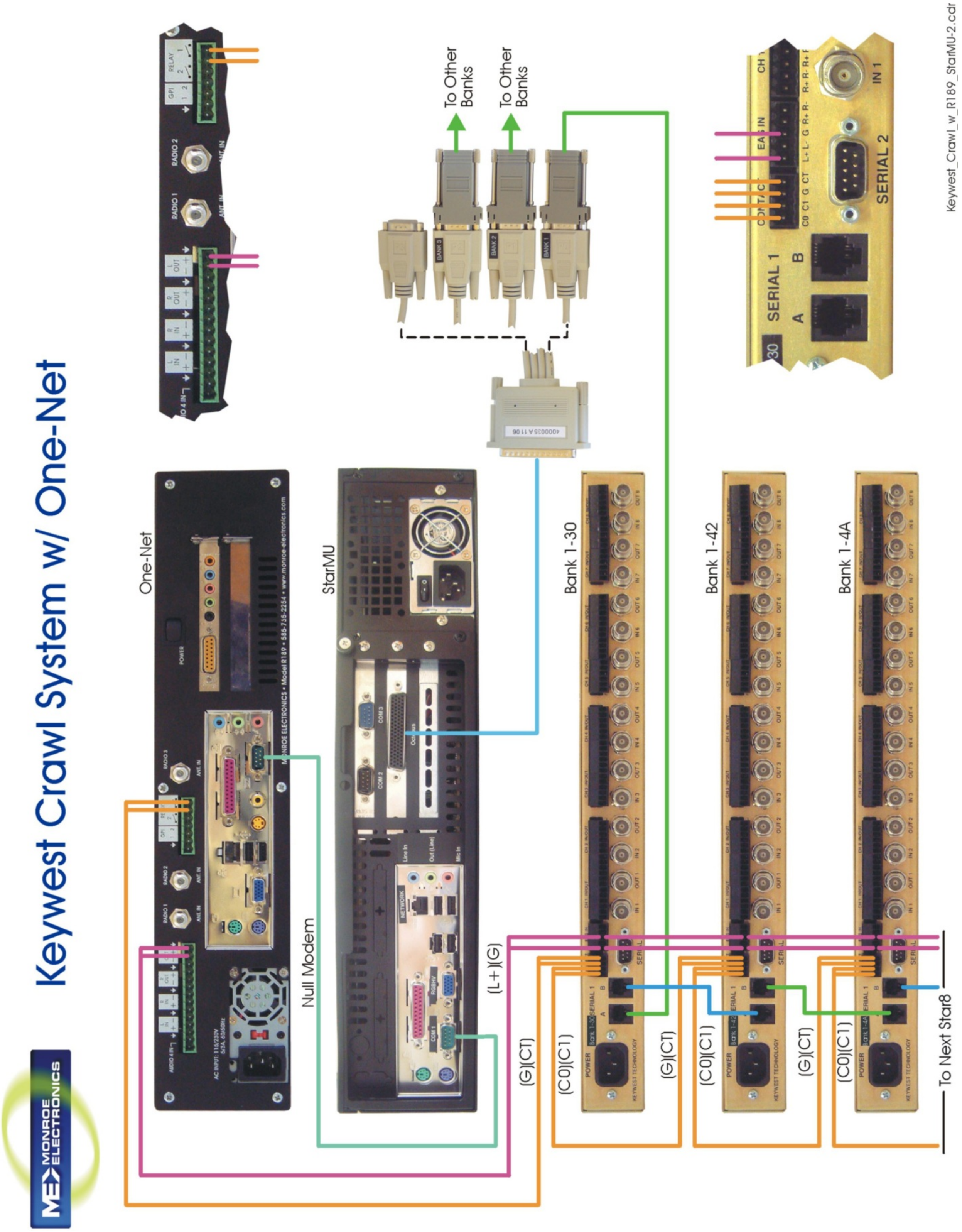
Keywest Crawl System w/ One-Net



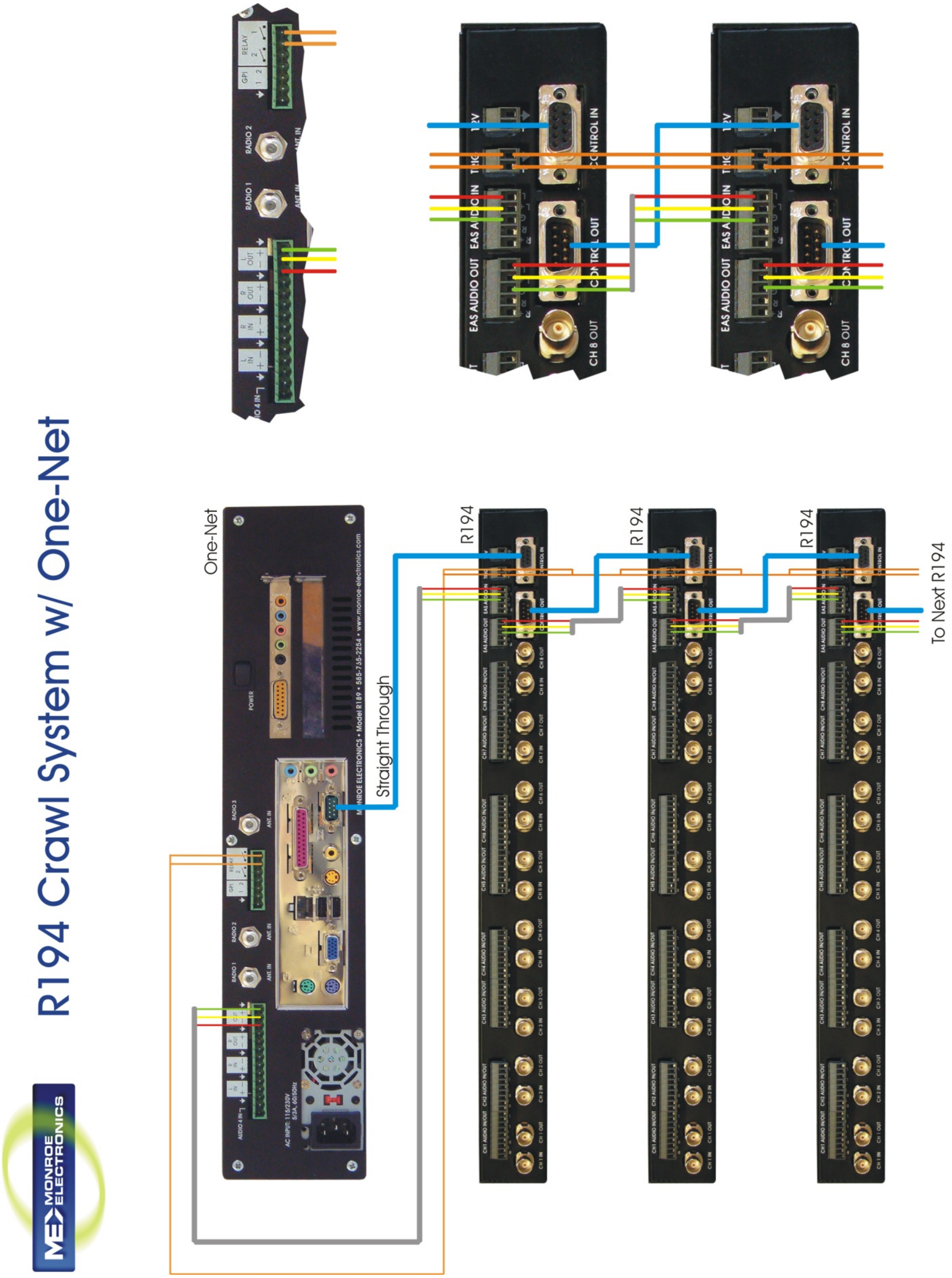
KeyWest Crawl System with Starmu



KeyWest Crawl System with Starmu



R194 Crawl System



Appendix

The One-Net^{SE} encodes the EAS messages per FCC rules for the EAS protocol. The EAS protocol from the FCC is described as follows (printed directly from the FCC ruling).

The EAS uses a four-part message for an emergency activation of the EAS. The four parts are; Preamble and EAS Header Codes, audio Attention Signal, message, and, Preamble and EAS End Of Message Codes.

The Preamble and EAS Codes must use Audio Frequency Shift Keying at a rate of 520.83 bits per second to transmit the codes. Mark frequency is 2083.3 Hz and space frequency is 1562.5 Hz. Mark and space time must be 1.92 milliseconds. Characters are ASCII seven bit characters as defined in ANSI X3.4-1977 ending with an eighth null bit (either 1 or 0) to constitute a full eight-bit byte.

The Attention Signal must be made up of the fundamental frequencies of 853 and 960 Hz. The two tones must be transmitted simultaneously. The Attention Signal must be transmitted after the EAS header codes.

The message may be audio, video or text.

The ASCII dash and plus symbols are required and may not be used for any other purpose. Unused characters must be ASCII space characters. FM or TV call signs must use a slash ASCII character number 47 (/) in lieu of a dash.

The EAS protocol, including any codes, must not be amended, extended or abridged without FCC authorization. The EAS protocol and message format are specified in the following representation. Examples are provided in FCC Public Notices.

[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(one second pause)
[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(one second pause)
[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(At least a one second pause)
(Transmission of 8 to 25 seconds of Attention Signal)
(Transmission of audio, video or text messages)
(at least a one second pause)
[PREAMBLE]NNNN
(One second pause) [PREAMBLE]NNNN
(One second pause) [PREAMBLE]NNNN
(At least one second pause)

[PREAMBLE] This is a consecutive string of bits (sixteen bytes of AB hexadecimal [8 bit byte 10101011]) sent to clear the system, set AGC and set asynchronous decoder clocking cycles. The preamble must be transmitted before each header and End Of Message code.

ZCZC- This is the identifier, sent as ASCII characters ZCZC to indicate the start of ASCII code.

ORG- This is the Originator code and indicates who originally initiated the activation of the EAS. These codes are specified in paragraph (d) of this section.

EEE- This is the Event code and indicates the nature of the EAS activation. The codes are specified in paragraph (e) of this section. The Event codes must be compatible with the codes used by the NWS Weather Radio Specific Area Message Encoder (WRSAME).

PSSCCC- This is the Location code and indicates the geographic area affected by the EAS alert. There may be 31 Location codes in an EAS alert. The Location code uses the Federal Information Processing Standard (FIPS) numbers as described by the U.S. Department of Commerce in National Institute of Standards and Technology publication FIPS PUB 6-4. Each state is assigned an SS number as specified in paragraph (f) of this section. Each county and some cities are assigned a CCC number. A CCC number of 000 refers to an entire State or Territory. P defines county subdivisions as follows: 0 = all or an unspecified portion of a county, 1 = Northwest, 2 = North, 3 = Northeast, 4 = West, 5 = Central, 6 = East, 7 = Southwest, 8 = South, 9 = Southeast. Other numbers may be designated later for special applications. The use of county subdivisions will probably be rare and generally for oddly shaped or unusually large counties. Any subdivisions must be defined and agreed to by the local officials prior to use.

+TTTT- This indicates the valid time period of a message in 15 minute segments up to one hour and then in 30 minute segments beyond one hour; i.e., +0015, +0030, +0045, +0100, +0430 and +0600.

JJJHHMM- This is the day in Julian Calendar days (JJJ) of the year and the time in hours and minutes (HHMM) when the message was initially released by the originator using 24 hour Universal Coordinated Time (UTC).

LLLLLLLL- This is the identification of the broadcast station, cable system, MDS/MMDS/ITFS station, NWS office, etc., transmitting or retransmitting the message. These codes will be automatically affixed to all outgoing messages by the EAS encoder.

NNNN- This is the End of Message (EOM) code sent as a string of four ASCII N characters.

The only originator codes are:

Originator	**ORG Codes**
Code Broadcast station or cable system	**EAS**
Civil authorities	**CIV**
National Weather Service	**WXR**
Primary Entry Point System	**PEP**

The following Event (EEE) codes are presently authorized:

Nature of Activation	**Event Codes**
National Codes (Required):	
Emergency Action Notification	**EAN (National only)**
National Information Center	**NIC**
National Periodic Test	**NPT**
Required Monthly Test	**RMT**
Required Weekly Test	**RWT**
State and Local Codes (Optional):	
Administrative Message	**ADR**
Avalanche Warning	**AVW**
Avalanche Watch	**AVA**
Blizzard Warning	**BZW**
Child Abduction Emergency	**CAE**
Civil Danger Warning	**CDW**
Civil Emergency Message	**CEM**
Coastal Flood Warning	**CFW**
Coastal Flood Watch	**CFA**
Dust Storm Warning	**DSW**
Earthquake Warning	**EQW**
Evacuation Immediate	**EVI**
Fire Warning	**FRW**
Flash Flood Warning	**FFW**
Flash Flood Watch	**FFA**
Flash Flood Statement	**FFS**
Flood Warning	**FLW**
Flood Watch	**FLA**
Flood Statement	**FLS**
Hazardous Materials Warning	**HMW**
High Wind Warning	**HWW**
High Wind Watch	**HWA**
Hurricane Warning	**HUW**
Hurricane Watch	**HUA**
Hurricane Statement	**HLS**

Law Enforcement Warning	**LEW**
Local Area Emergency	**LAE**
Network Message Notification	**NMN**
911 Telephone Outage Emergency	**TOE**
Nuclear Power Plant Warning	**NUW**
Practice/Demo Warning	**DMO**
Radiological Hazard Warning	**RHW**
Severe Thunderstorm Warning	**SVR**
Severe Thunderstorm Watch	**SVA**
Severe Weather Statement	**SVS**
Shelter in Place Warning	**SPW**
Special Marine Warning	**SMW**
Special Weather Statement	**SPS**
Tornado Warning	**TOR**
Tornado Watch	**TOA**
Tropical Storm Warning	**TRW**
Tropical Storm Watch	**TRA**
Tsunami Warning	**TSW**
Tsunami Watch	**TSA**
Volcano Warning	**VOW**
Winter Storm Warning	**WSW**
Winter Storm Watch	**WSA**

One-Net^{SE} Peripherals

The One-Net^{SE} will in time support many peripheral devices, from character generators to printers. In the first release, the One-Net^{SE} can replace several other EAS encoder/decoder units, depending upon the peripheral hardware to which they have been connected.

Vela NDU

The Vela NDU 710 is a sophisticated character generator controller and general messaging system from Vela Broadcast. It comes with a complete EAS management system that controls a TFT-911 EAS encoder/decoder. The One-Net^{SE} can replace a TFT-911 in this system. It can be connected via a Null modem cable from the NDU serial port to the One-Net^{SE} serial port. The One-Net^{SE} alert audio output must be wired to the selected NDU audio input port. The One-Net^{SE} CG setting must be set to TFT. After that, the NDU will run normally without further configuration. For details on the Vela NDU 701, refer to the literature at www.vela.com.

Other character generators

Any character generator that can operate the standard TFT 911 EAS serial control protocol can use a One-Net^{SE}. A Null modem cable from the CG serial port must be connected to the One-Net^{SE} serial port.

The One-Net^{SE} can replace systems that operate Chyron CODI character generators. The One-Net^{SE} supports both the analog CODI as well as the Digibox CODI.

The Emergency Alert System

Purpose

According to the FCC, "The EAS is designed to provide the President with a means to address the American people in the event of a national emergency. Through the EAS, the President would have access to thousands of broadcast stations, cable systems and participating satellite programmers to transmit a message to the public. The EAS and its predecessors, CONELRAD and the Emergency Broadcast System (EBS), have never been activated for this purpose. But beginning in 1963, the President permitted state and local level emergency information to be transmitted using the EBS."

However, the EAS system is used for much more than to support a method of communication that has never been (and hopefully never will be) used. The EAS system provides state and local officials with a method to quickly send out important local emergency information targeted to a specific area. This includes weather alerts as well as local emergency alerts such as child abductions and disasters. The EAS system also runs test alerts on a weekly and monthly basis in order to insure operability.

Operation

The EAS system digitally encodes data into audible audio in order to distribute messages. This information can be sent out through a broadcast station and cable system. The EAS digital signal uses the same encoding employed by the National Weather Service (NWS) for weather alerts broadcast over NOAA Weather Radio (NWR). Broadcasters and cable operators can decode NWR alerts and then retransmit NWS weather warning messages almost immediately to their audiences. With the proper equipment and setup, EAS alerts can be handled automatically, making EAS information useful for unattended stations. Other specially equipped consumer products, built into some televisions, radios, pagers and other devices, can decode user selectable EAS messages.

The One-Net^{SE} is designed to facilitate the management side of encoding and decoding EAS alerts within cable and broadcast facilities. It is especially easy to use since it is IP addressable and accessible over a LAN.

Management

The FCC designed the EAS system, working in cooperation with the broadcast, cable, emergency management, alerting equipment industry, the National Weather Service (NWS) and the Federal Emergency Management Administration (FEMA).

The FCC provides information to broadcasters, cable system operators, and other participants in the EAS regarding the requirements of this emergency system. Additionally, the FCC ensures that EAS state and local plans developed by industry conform to the FCC EAS rules and regulations and enhance the national level EAS structure.

NWS provides emergency weather information used to alert the public of dangerous conditions. Over seventy percent of all EAS and EBS activations were a result of natural disasters and were weather related. Linking NOAA Weather Radio digital signaling with the EAS digital signaling will help NWS save lives by reaching more people with timely, site-specific weather warnings.

FEMA provides direction for state and local emergency planning officials to plan and implement their roles in the EAS.

Your responsibility as a cable provider

Your One-Net^{SE} Encoder/Decoder allows your facility to decode EAS alerts originated from alert sources in your area. The sources are local radio stations. These stations can be forwarding alerts received from a web of broadcasters, or originating alerts if designated as a primary source. To meet minimum requirements of the FCC, you must send randomized weekly tests, forward monthly tests, and forward National alerts. Your state and local EAS plan may also impose other requirements.

A good source of information is the EAS website at http://www.fcc.gov/eb/eas/ . The FCC provides handbooks in Adobe PDF format for AM and FM radio, for TV and for Cable TV.